

AN ARCHAEOLOGICAL SURVEY OF THREE SELECTED
PARCELS OF LAND IN THE CHURCH ROCK AREA OF
NORTHWESTERN NEW MEXICO FOR CH 2 M HILL

NNCRMP 84-200

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Tribal Permit No. NTC

To
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Prepared for
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927481

Abstract

From May 23 to May 25, 1984, representatives of the Navajo Nation Cultural Resource Management Program (NNCRMP) conducted an archaeological survey of three (3) separate parcels of land in the Church Rock area near Gallup, New Mexico for CH 2 M Hill. The survey areas involve approximately 132.5 acres of both Navajo Indian Reservation and Allotted Land to be used for exploratory drilling operations.

A total of ten (10) archaeological sites and five (5) isolated occurrences were located during the survey. The former includes nine (9) single or multicomponent Anasazi and Navajo sites and a single lithic scatter of probable Anasazi or Navajo cultural affiliation. It has been recommended that all these cultural resources avoided by the project.

Introduction

From May 23 to May 25, 1984 representatives of the Navajo Nation Cultural Resource Management Program (NNCRMP) conducted an archaeological survey of the three separate parcels of land in the Church Rock area of northwestern New Mexico. The survey was initiated at the request of Mr. Terry Chatwin, Project Manager, CH 2 M Hill, Salt Lake City, Utah, 84122. The three parcels of land included in the survey are located on the Navajo Indian Reservation or Allotted Land about 15 miles northeast of Gallup. The Area Archaeologist's office for the Bureau of Indian Affairs was notified concerning the upcoming survey on May 22, 1984.

Project Location and Description

The three project areas, arbitrarily labeled as Areas 1, 2, and 3 for the convenience of description, are situated in Townships 16 and 17 North and Range 16 West on the Hard Ground Flats and Oak Springs, N. Mex., 1963, USGS quadrangle (Figure 1). The legal descriptions and UTM coordinates for the project areas are summarized in Tables 1 and 2.

CH 2 M Hill is coordinating a program involving the proposed drilling of a number of test and monitoring well locations within the three project areas. A single well will be drilled in Area 1, eight wells are planned within Area 2, and six wells within Area 3. The survey of relatively large areas will allow for possible relocation of individual wells.

Area 1 measures about 200 m long and 125 m wide (approximately 6.0 acres). The parcel is bounded by a dirt road on the west side and by a fence line on the south edge. Area 2, measuring about 750 m by 375 m, is simply the western half of the NW $\frac{1}{4}$ of Section 1 and involves a total of 69.5 acres. Area 3 originally involved an area about 600 m long and 250 m wide. During the survey, the southeast boundary was extended to the section marker and talus slope base for logistical reasons. The fence and talus slope base form an easily recognizable boundary and locating the section marker prior to the examination of the parcel aided in establishing the project boundaries. Where these boundary lines were not outlined by features such as fences, roads, or pipelines, the perimeter was marked by yellow flagging tape. The corners of each parcel were marked with orange tape.

In summary, the three individual project areas involve the following number of areas: Area 1--6 acres, Area 2--69.5 acres, and Area 3--57.0 acres. Thus, a total of approximately 132.5 acres was examined for cultural resources during the survey. Project Areas 1 and 2 involve Reservation land while the third parcel includes Reservation land (SE $\frac{1}{4}$ of Section 3) and Allotted Land (NE $\frac{1}{4}$ of Section 10).

Survey Methodology

Each of the three project areas were examined for cultural resources by a minimum of two archaeologists who walked parallel transects across the

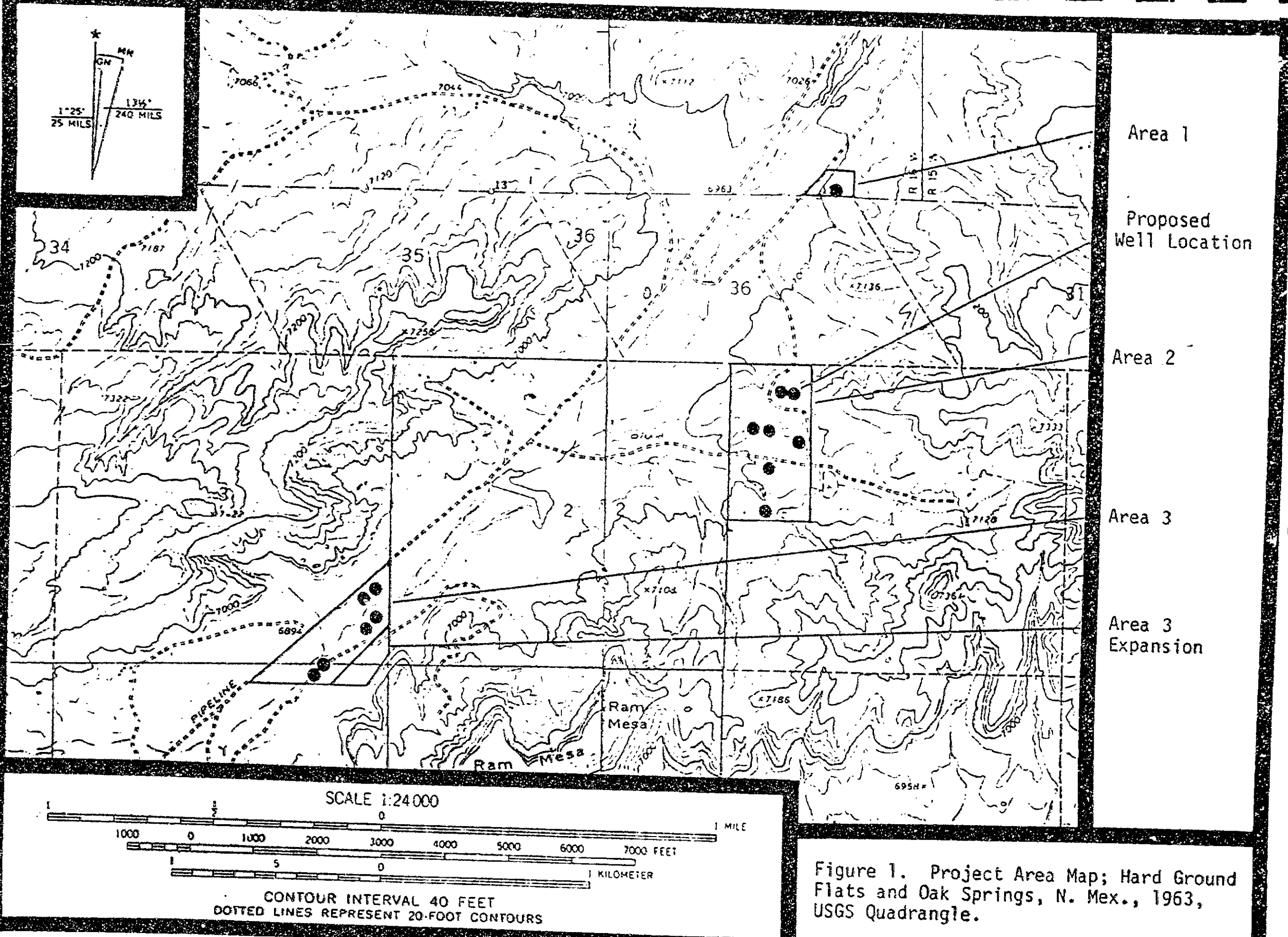


Table 1. Legal Descriptions for Project Areas

Project Area	Legal Descriptions					
	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	Sec.	T.	R.
Area 1	(unplatted)			36	17N	16W
Area 2	All Quarters	NW	NW	1	16N	16W
	All Quarters	SW	NW	1	16N	16W
Area 3	SE	NE	SE	3	16N	16W
	All Quarters	SE	SE	3	16N	16W
	NE and NW	NE	NE	10	16N	16W
	NE and NW	NW	NE	10	16N	16W

Table 2. Project Area UTM Coordinates (Zone 12)

Project Area	UTM Coordinates	
	Northing	Easting
Area 1		
Northeast corner	3949040	727460
Northwest corner	3949050	727325
Southwest corner	3948920	727225
Southeast corner	3948910	727470
Area 2		
Northeast corner	3948110	727300
Northwest corner	3948100	726920
Southwest corner	3947350	726940
Southeast corner	3947365	727325
Area 3		
Northeast corner	3947070	725330
Northwest corner	3946625	725350
(north of section marker)		
Southeast corner	3946475	725240
Southwest corner	3946465	724680

survey parcels. The transects were spaced at intervals of about 15 to 20 m apart. Flagging of area boundaries was accomplished during the transecting, rather than prior to the actual survey. Archaeologists participating in the survey included Tim McEnany, Linda Popelish, and Bill Copeland.

Archaeological sites were recorded using a compass; distances between features and so forth were usually paced and sometimes measured with a tape. The sites were all marked with flagging tape placed around the entire periphery of the site, a portion of the boundary, or at the center of the site area. Information on archaeological sites, isolated occurrences, and the environmental setting of the survey areas was recorded in a field notebook. The NNCRMP site survey and isolated occurrence sheets were completed upon returning from the field.

A minimal amount of artifact collecting was done during the project. The amount and type of artifacts collected are noted on the site forms and in the individual site descriptions provided in this report. The artifacts are stored at the NNCRMP office in Window Rock, Arizona.

Environmental Setting

The project areas are located along the southern periphery of the San Juan Basin. Geologically, the Church Rock Area lies along the Nutria Monocline (Fassett and Hinds 1971). The region is inclined toward the southwest and grades into the Gallup Basin. The sedimentary formations exposed in the area include members of the Cretaceous Period Mesa Verde Group, Dakota Sandstone, and the Mancos Shale (Beal 1979). These formations produce sandy soils of the Rockland-Travessilla and Hagerman-Travessilla Associations.

The project Areas are located near Ram Mesa about 1 to 2 miles north of the Puerco River of the West. Area 3 is crosscut by an unnamed intermittent tributary of the river which, in this area at least, is entrenched to a depth of about 30 to 40 feet. Lowlands such as these support grassland or sagebrush communities. Pinyon and juniper occur on ridges, mesas, and talus slopes. Clearings dominated by dense sagebrush stands can also be found on the ridgetops. The elevation of the project areas range from about 6880 to 7120 feet.

Cultural Historical Background

Several archaeological surveys of small or medium size have been carried out in the vicinity of the project areas, often in connection with proposed uranium mining operations (Beal 1979, Strnad 1980, Hudgens 1980, Popelish 1984, Ford and DeHoff 1977, Kemrer 1978). The following is a brief summary of the local culture history based upon the results of these surveys.

Culture History

The majority of the above-mentioned surveys have been conducted in the region between the present study area and Hard Ground Canyon to the west.

Popelish (1984) compiled a summary of prehistoric and historic sites recorded during these projects. The results suggested possible differences in the intensity of use of various areas, although dissimilar definitions of sites versus isolated occurrences and survey coverage may be partially responsible for the divergent results. In any case, there seems to have been little prehistoric occupation of the region prior to the Anasazi Period. The Navajo have been responsible for most of the historic occupation of this area.

The peak of Anasazi settlement coincides with the Pueblo II/III Period (A.D. 1000 to 1200). Several Basketmaker III sites (A.D. 450 to 750) evidencing hearths and pithouse depressions have been recorded (Beal 1979). The later Puebloan sites range from small lithic and ceramic scatters to large habitations containing 20 to 30 rooms and a few kivas.

Navajo site types include habitation complexes and special activity loci such as windbreaks, shrines, petroglyphs, and water control features. The majority of these sites appear to date to the mid or late 1900s (Popelish 1984), although others may date to the turn of the century (Grigg and Powell 1976). Popelish's (1984) summary suggests that Navajo sites are about one-half as abundant as Anasazi sites.

Cultural Resources

Ten archaeological sites and five isolated occurrences were recorded during the project. The majority of sites and isolated occurrences were located within Area 2 (Figure 2). Not unexpectedly, most of the recorded cultural resources represent single or multicomponent Anasazi and Navajo sites. A lithic scatter of unknown cultural affiliation was also recorded in Area 2; it is probably an Anasazi or Navajo site as well.

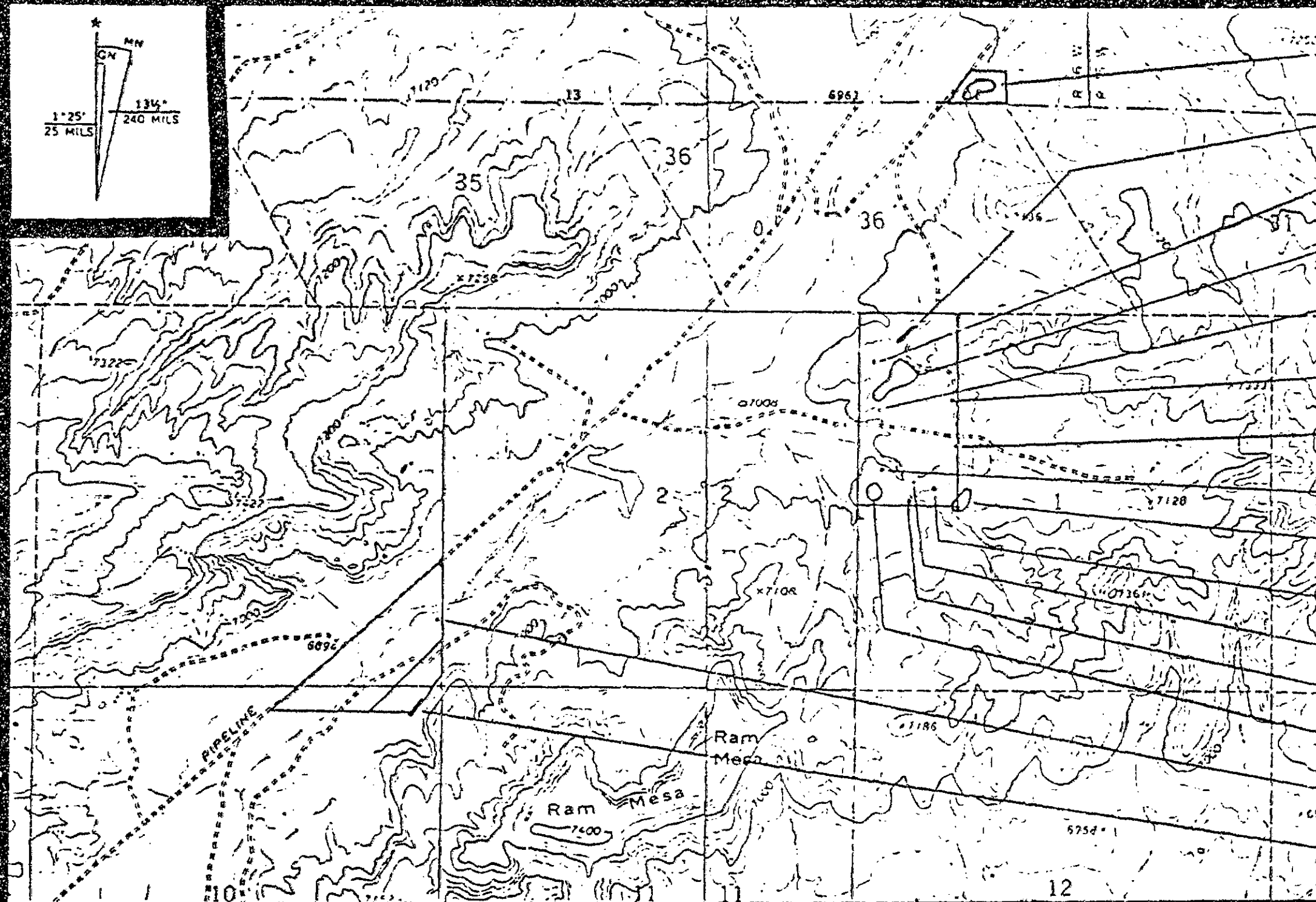
This section provides brief summary of all cultural resources recorded during the course of the project. The site and isolated occurrence forms are attached as an appendix to this report.

Isolated Occurrences

Isolated Occurrence 1: One corrugated gray ware sherd.

Isolated Occurrence 2: Single sherd of Gallup or Puerco Black-on-white.

Isolated Occurrence 3: Single sherd of Gallup or Puerco Black-on-white.



- NM-Q-21-1
- NM-Q-21-6
- NM-Q-21-8
- NM-Q-21-7
- I.O. No. 5
- NM-Q-21-9
- I.O. No. 2
- I.O. No. 4
- NM-Q-21-5
- NM-Q-21-4
- I.O. No. 3
- NM-Q-21-3
- NM-Q-21-2
- I.O. No. 1
- NM-Q-20-5

Figure 2. Recorded Sites and Isolated Occurrences; Hard Ground Flats and Oak Springs, N. Mex. 1963, USGS Quadrangle.

Isolated Occurrence 4: Four plain gray ware body sherds.

Isolated Occurrence 5: Three unidentified white ware sherds.

Archaeological Sites

SITE NUMBER: NM-Q-21-1

MAP REFERENCE: Oak Springs, N. Mex., 7.5 minute, 1963

LEGAL DESCRIPTION: (Section Line Unplatted) Sec. 36, T. 17N, R. 16W.

UTM COORDINATES: Zone 12, Northing 3949020, Easting 727430 (Northeast end)
Zone 12, Northing 3948940, Easting 727325 (Southwest end)

ELEVATION: 7000 to 7040 feet

SITE AREA: 10,500 square meters

CULTURAL/TEMPORAL AFFILIATION: Navajo (1934[?] to 1977)

SITE TYPE: Temporary camp site

ENVIRONMENT: The site is located on top and along the base of a ridgetop at the edge of the valley floor. Pinyon and juniper occur on the ridge while sagebrush dominates the area below.

CULTURAL RESOURCES: The site is a fairly recent Navajo temporary camp consisting of at least one, and possibly four, hearths (Features 1, 3, 5, and 10), a short rock alignment (Feature 2), a rock shelter with a low masonry wall in front (Feature 5), and a wood-chopping area (Feature 6). Features 8 and 9 are groups of two (Feature 8) or three (Feature 9) fire-cracked (?) rocks and some trash. The density of artifacts on the site is quite low. Items present include a few metal cans, glass bottles and sherds, the legs to a wooden folding chair, and some shotgun shells. Although the first use of the site could have occurred as early as 1934, most of the artifacts suggest a more recent date. For example, a bottle made in 1977 was found within the wood-chopping area.

SITE NUMBER: NM-Q-20-5

MAP REFERENCE: Hard Ground Flats, N. Mex., 7.5 minute, 1963

LEGAL DESCRIPTION: NE $\frac{1}{4}$ of NE $\frac{1}{4}$ of NE $\frac{1}{4}$ of Sec. 10, T. 16N, R. 16W.

UTM COORDINATES: Zone 12, Northing 3946475, Easting 725230 (center point)

ELEVATION: 6910 feet

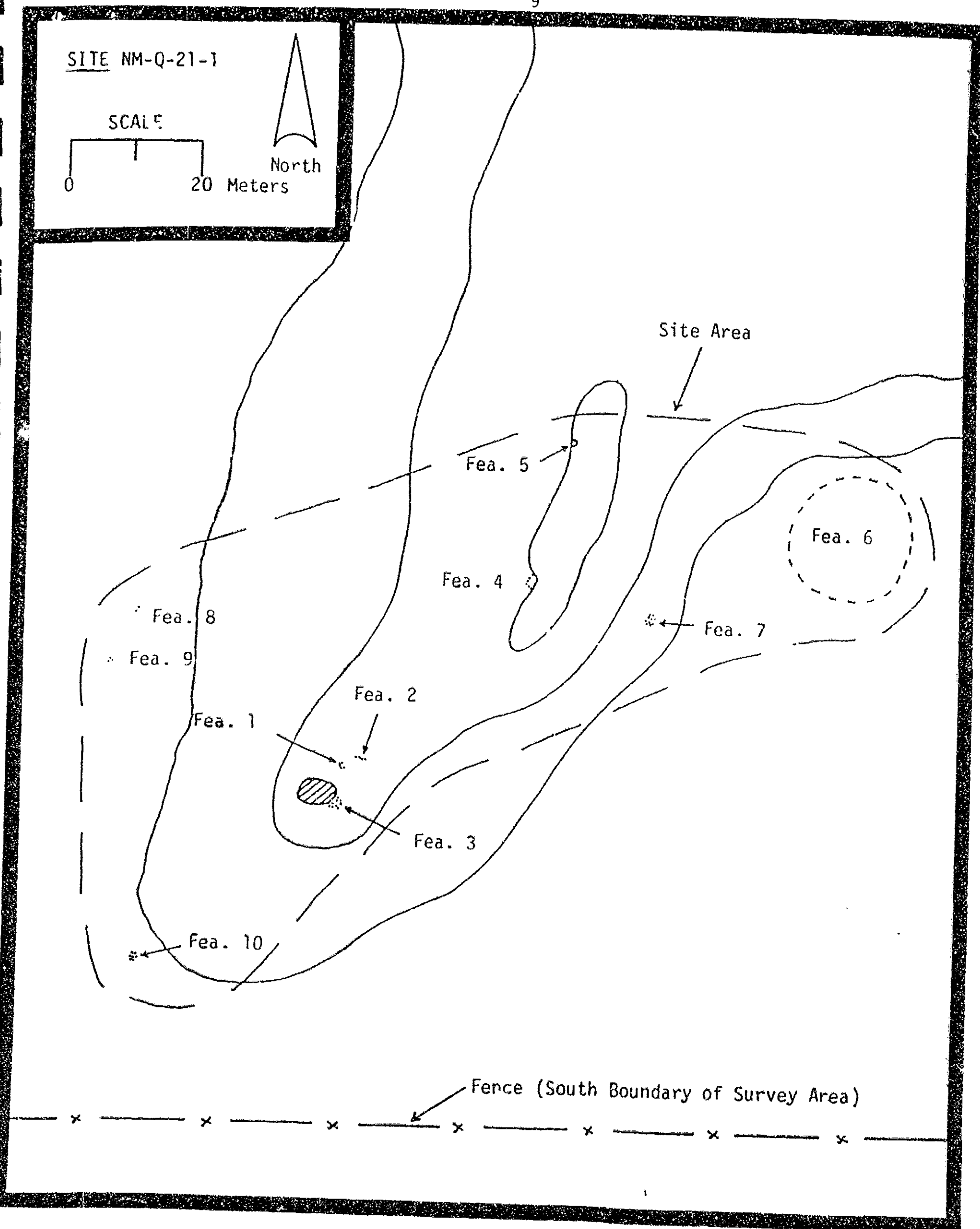


Figure 3. Map of Site NM-Q-21-1.

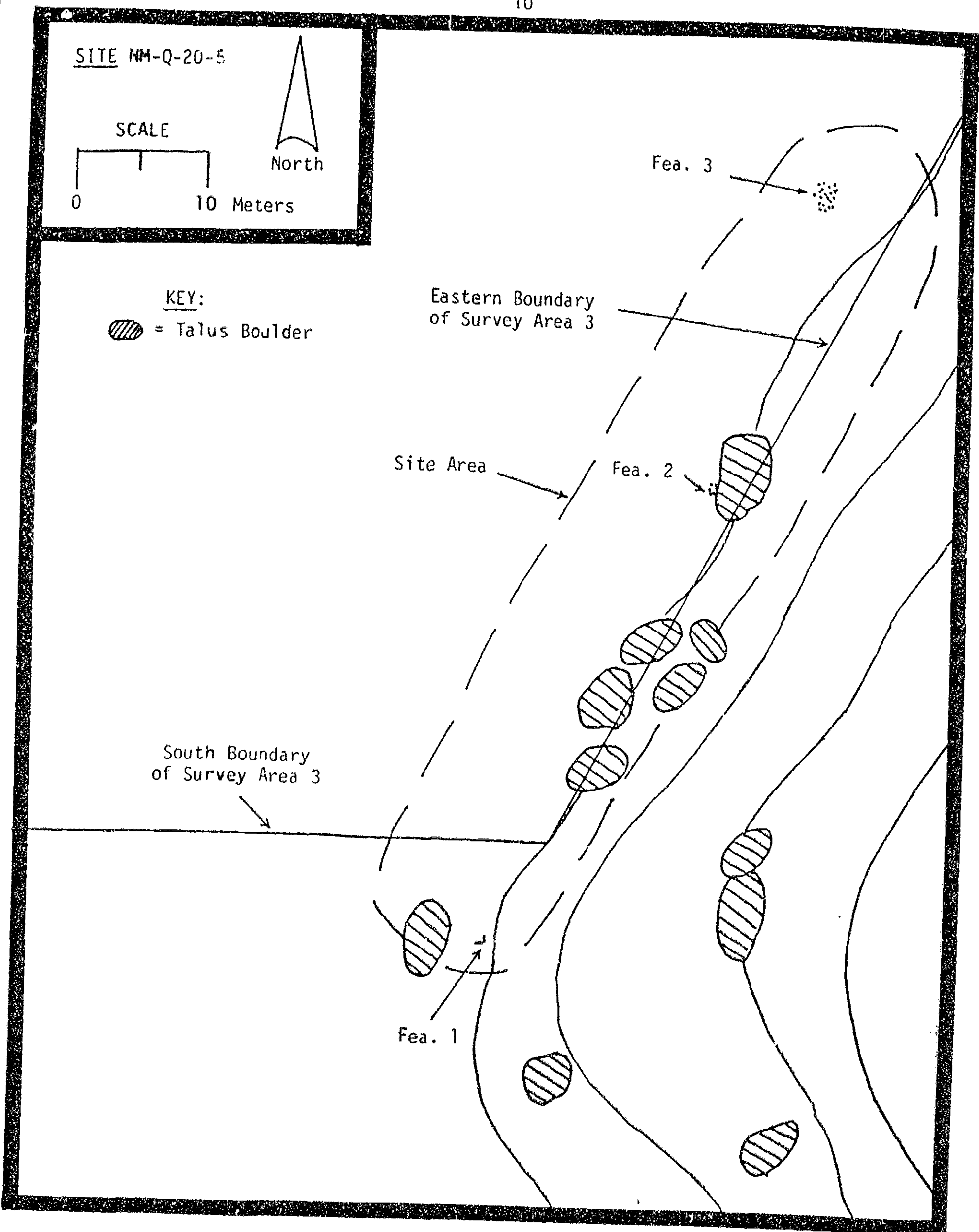


Figure 4. Map of Site NM-Q-20-5.

SITE AREA: 1400 square meters

CULTURAL/TEMPORAL AFFILIATION: Anasazi/Pueblo II-III (A.D. 1000-1125)

SITE TYPE: Camp site/floral resource procurement(?)

ENVIRONMENT: The site is situated along the edge of the valley floor below a fairly steep talus slope. The valley edge forms a boundary between the pinyon-juniper and sagebrush plant communities.

CULTURAL RESOURCES: The site consists of three features, a scatter of ceramics, and a single chert flake. Feature 1 is a probable slab-lined cist composed of two upright sandstone slabs in an L-shaped alignment. A large ant hill obscures the remaining slabs assumed to be present. Feature 2 is a D-shaped alignment of sandstone resting against a large boulder. This feature may have been a hearth, however, there is no ash stain and the sandstone does not appear to be fire-cracked. Feature 3 is a relatively large rock pile of uncertain function. Some of the stone appears to be fire-cracked.

Ceramics observed at the site included 3 black-on-white, 8 white ware, and 12 corrugated gray ware sherds. The black-on-white sherds have been identified as Red Mesa black-on-white (2) and Gallup or Puerco Black-on-white (1).

SITE NUMBER: NM-Q-21-2

MAP REFERENCE: Oak Springs, N. Mex., 7.5 minute, 1963

LEGAL DESCRIPTION: SW $\frac{1}{4}$ of SW $\frac{1}{4}$ of NW $\frac{1}{4}$ of Sec. 1, T. 16W, R. 16W.

UTM COORDINATES: Zone 12, Northing 3947410, Easting 727010 (center point)

ELEVATION: 7010 feet

SITE AREA: 4200 square meters

CULTURAL/TEMPORAL AFFILIATION: 1) Anasazi (Pueblo II-III)
2) Navajo (1900-1930?)

SITE TYPE: 1) Isolated sherd
2) Camp site (?)

ENVIRONMENT: The site is located on the sagebrush-covered valley floor about 100 m south of the main drainage channel. Adjacent to the latter is a natural mound of earth.

CULTURAL RESOURCES: The site consists of some historic trash, a rock feature of uncertain function, and a single prehistoric black-on-white potsherd. Broken glass and hole-in-top metal cans dominate in the inventory of historic artifacts. A few potted meat and fish containers, a brick, and

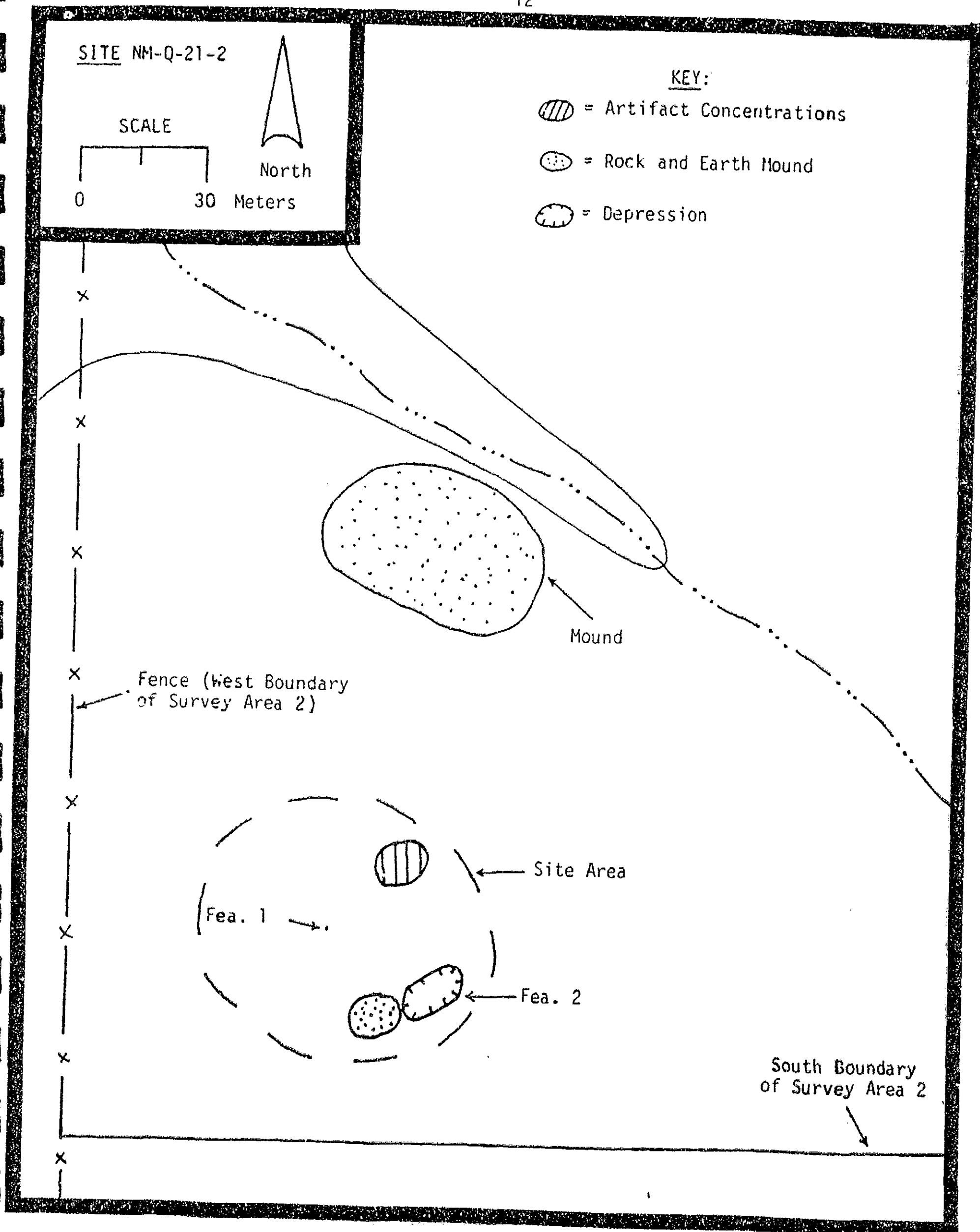


Figure 5. Map of Site NM-Q-21-2.

two shotgun cartridge cases were also present.

Feature 1 is a low rock pile measuring about 1.0 m in diameter. It may represent an oven, however, the sandstone exhibits little evidence of having been heated. Feature 2 is a recent soil test pit and an associated backdirt pile. In the northwest portion of the site area is a concentration of metal cans (Feature 3). An irregular patch of disturbance vegetation suggests that a corral or some other feature was once present in this area.

SITE NUMBER: NM-Q-21-3

MAP REFERENCE: Oak Springs, N. Mex., 7.5 minute, 1963

LEGAL DESCRIPTION: SE $\frac{1}{4}$ of SW $\frac{1}{4}$ of NW $\frac{1}{4}$ of Sec. 1, T. 16W, R. 16W.

UTM COORDINATES: Zone 12, Northing 3947380, Easting 727150 (center point)

ELEVATION: 7035 feet

SITE AREA: 900 square meters

CULTURAL/TEMPORAL AFFILIATION: Anasazi/Pueblo II-III (A.D. 1000-1125)

SITE TYPE: Floral resources gathering and processing site

ENVIRONMENT: The site area is centered on a fairly high natural mound (erosional remnant) located adjacent to a small drainage near the point of a ridge.

CULTURAL RESOURCES: The mound is about 5.0 or 6.0 m high and roughly D-shaped at its base. The straight side has been formed by the drainage channel. Two concentrations of ceramics occur on the north and south sides of the mound. A portion of a trough metate was found in southern area; it was the only stone artifact observed at the site. Feature 1 is a small pile of sandstone located at the base of the mound. Two roughly linear arrangements of rock extend from the pile in opposite directions. This feature may represent a collapsed storage structure or possibly a field house.

SITE NUMBER: NM-Q-21-4

MAP REFERENCE: Oak Springs, N. Mex., 7.5 minute, 1963

LEGAL DESCRIPTION: SE $\frac{1}{4}$ of SW $\frac{1}{4}$ of NW $\frac{1}{4}$ of Sec. 1, T. 16N, R. 16W.

UTM COORDINATES: Zone 12, Northing 3947440, Easting 727230 (center point)

ELEVATION: 7050 feet

SITE AREA: 625 square meters

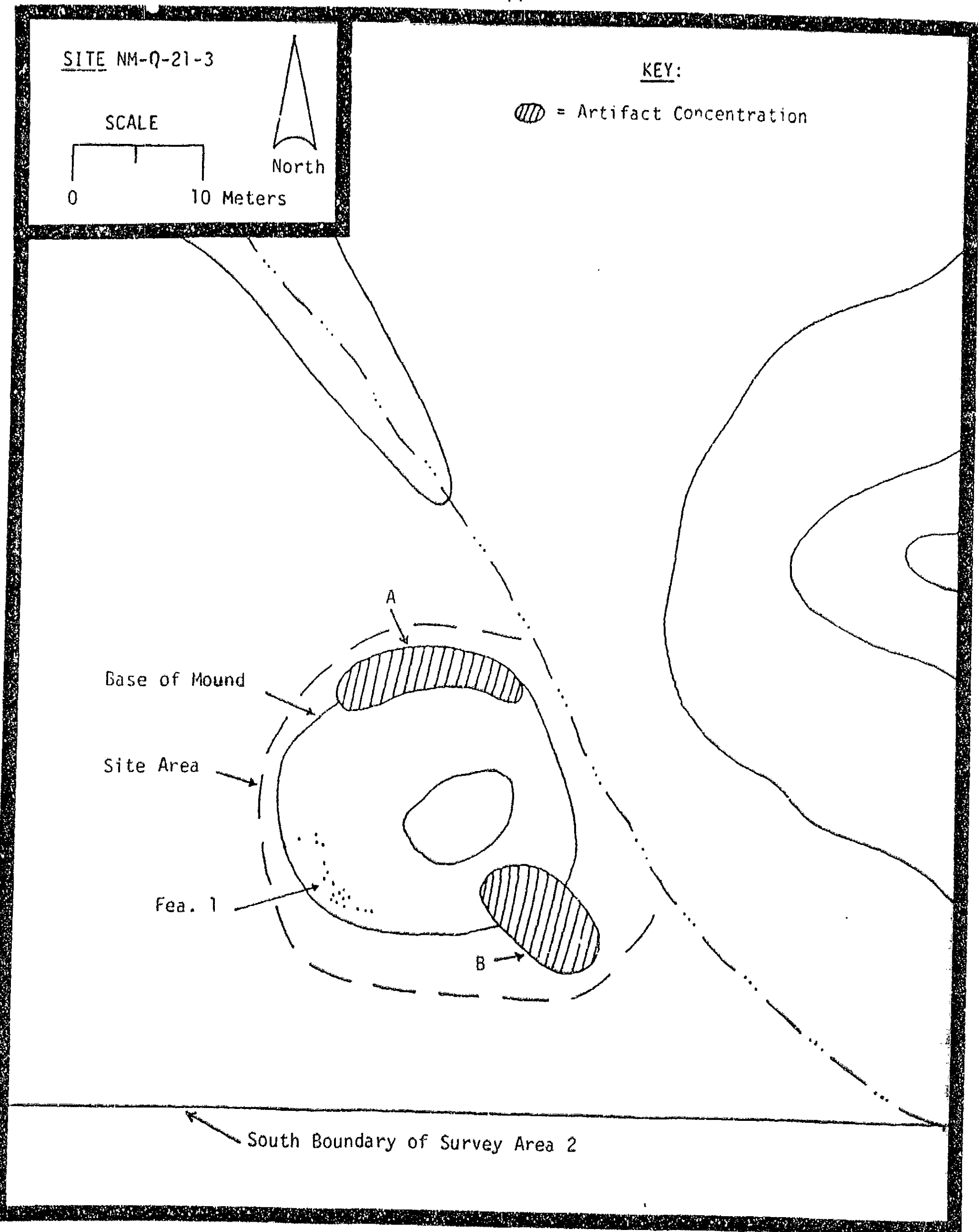


Figure 6. Map of Site NM-Q-21-3.

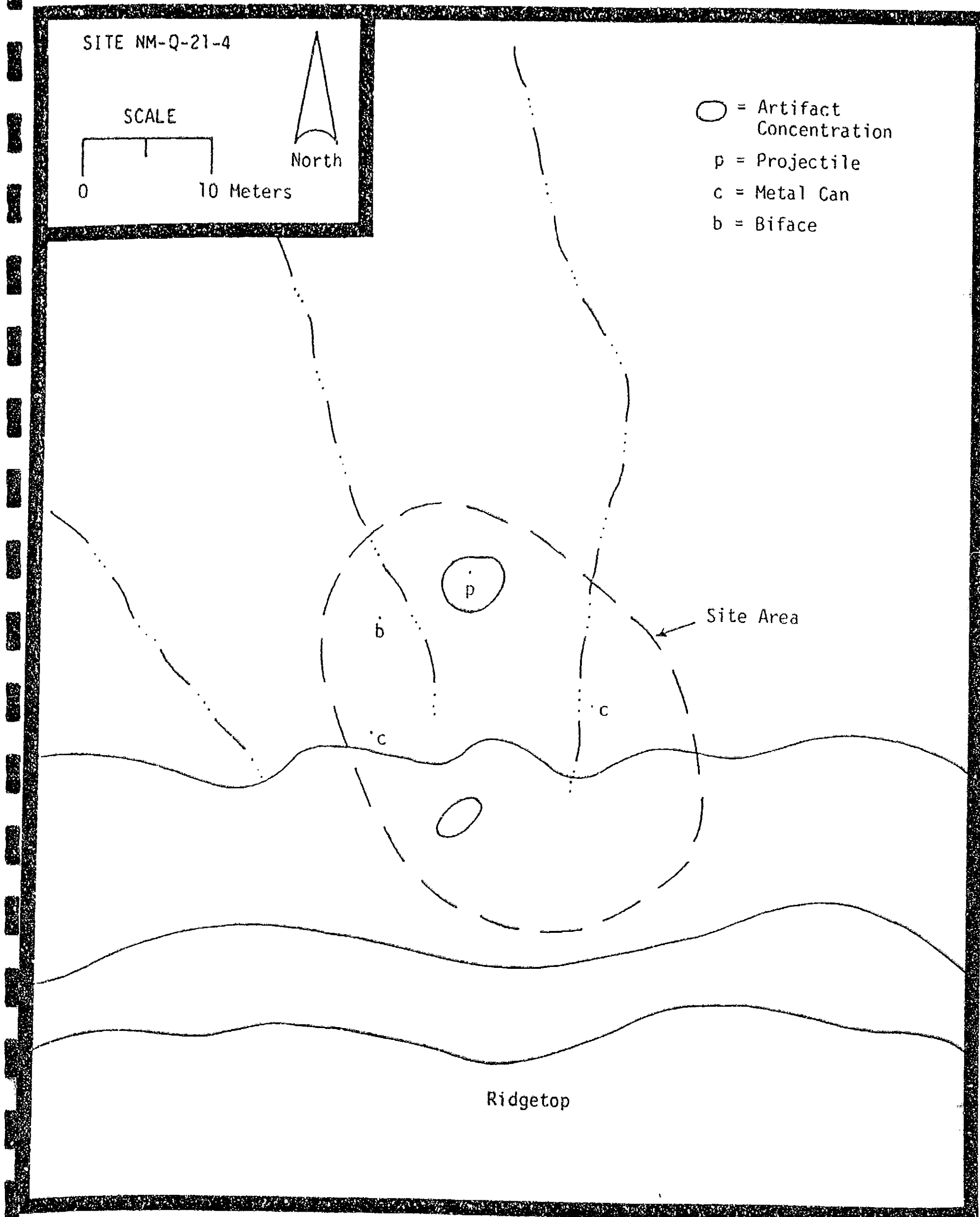


Figure 7. Map of Site NM-Q-21-4.

CULTURAL/TEMPORAL AFFILIATION: Unknown

SITE TYPE: Lithic scatter/Hunting camp?

ENVIRONMENT: The site is located just inside the pinyon-juniper community on the north slope of a long ridgetop. Several small drainage channels run down the side of the ridge.

CULTURAL RESOURCES: The site is a small lithic scatter of unknown cultural and temporal affiliation. Artifacts observed on the site included only 7 flakes, 1 biface fragment, and 1 small corner-notched point. The latter has not been identified as to type. The site may represent a hunting camp, or possibly the location of a kill made during a hunting trip. The small size of the point would suggest a post-Archaic date and the site is probably of Anasazi or Navajo cultural affiliation.

SITE NUMBER: NM-Q-21-5

MAP REFERENCE: Oak Springs, N. Mex., 7.5 minute, 1963

LEGAL DESCRIPTION: SW $\frac{1}{4}$ of SE $\frac{1}{4}$ of NW $\frac{1}{4}$ and SE $\frac{1}{4}$ of SW $\frac{1}{4}$ of NW $\frac{1}{4}$ of Sec. 1, T. 16W, R. 16W.

UTM COORDINATES: Zone 12, Northing 3947370, Easting 727320 (Southwest end)
Zone 12, Northing 3947440, Easting 727360 (Northeast end)

ELEVATION: 7050 feet

SITE AREA: 8000 square meters

CULTURAL/TEMPORAL AFFILIATION: 1) Anasazi (Pueblo II-III [A.D. 1000-1125])
2) Navajo (ca. 1954)

SITE TYPE: 1) Single Dwelling Temporary Camp
2) Field House

ENVIRONMENT: The site is located on the north slope of a ridge near a large historic earthen dam. Vegetation on the site includes pinyon, juniper, sagebrush, and cactus.

CULTURAL RESOURCES: The prehistoric component at the site includes a dense ash-stained midden area and probably Feature 1--a single-room masonry unit probably representing a field house. The midden area (Feature 4) is primarily composed of ceramic debris. Although a small obsidian side-notched projectile point and two rectangular mano fragments were found in this area, lithic artifacts are quite rare. The stained soil suggests several episodes of ash-dumping or that hearths may be present in this area.

The historic Navajo component includes the remains of a brush corral (Feature 2) and a collapsed corbelled-log hogan (Feature 3). Unlike the Anasazi component, artifacts associated with the Navajo structures are

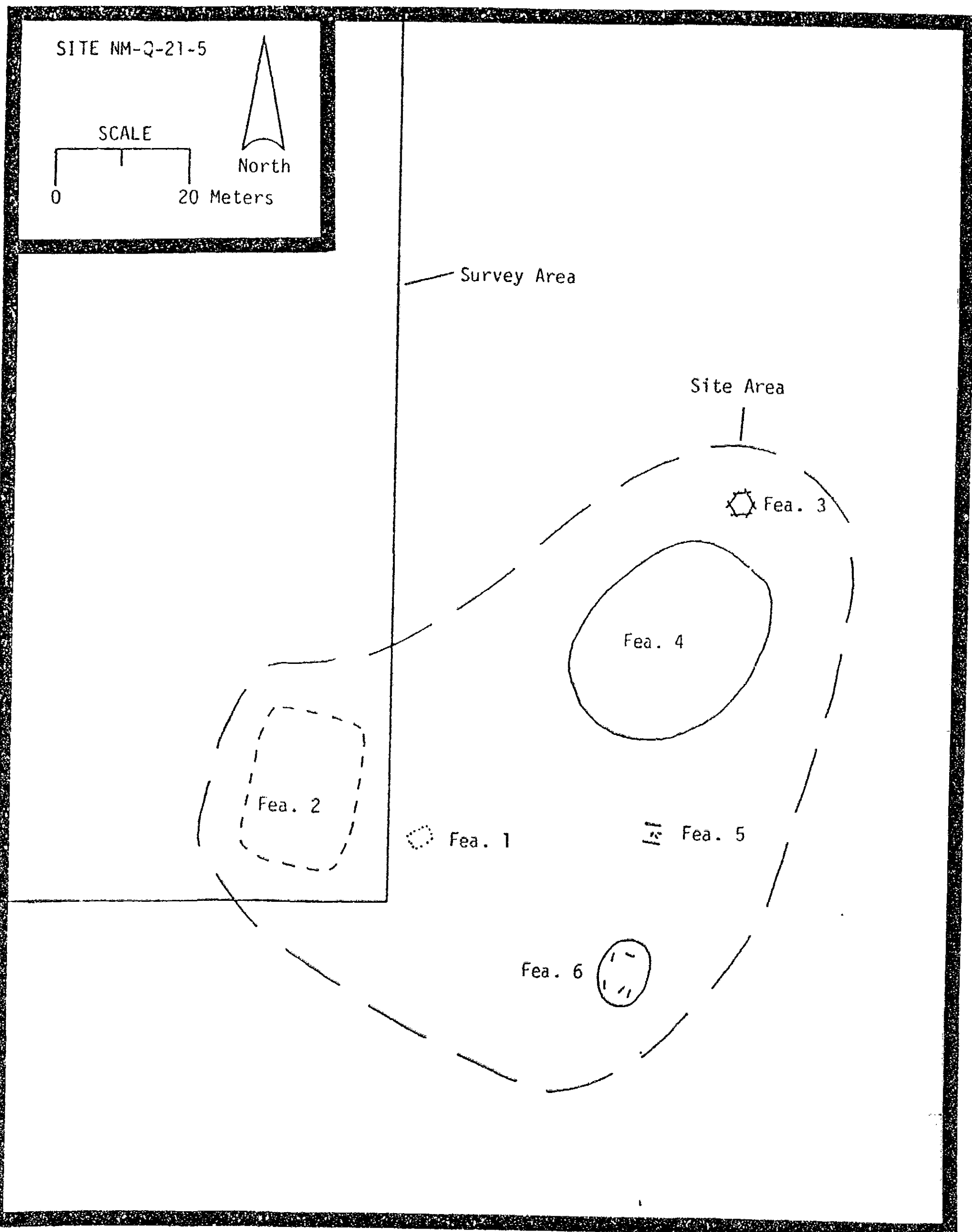


Figure 8. Map of Site NM-Q-21-5.

relatively rare. Other features belonging with the historic component are a scatter of milled-lumber (Feature 6) and a small pile of twigs located in between two posts lying horizontally on the ground (Feature 5).

Artifacts observed include two rectangular mano fragments, an obsidian projectile point, some lithic debitage, and an abundance of ceramic debris. Historic materials are relatively rare and include a few glass bottle bases, metal cans, a small perfume (?) bottle, and a piece of rubber. Black-on-white ceramics include examples of Gallup, Puerco/Reserve, and possible Red Mesa Black-on-white, one corrugated brown ware sherd was also found in the midden area.

SITE NUMBER: NM-Q-21-6

MAP REFERENCE: Oak Springs, N. Mex., 7.5 minute, 1963

LEGAL DESCRIPTION: NW $\frac{1}{4}$ of NW $\frac{1}{4}$ of NW $\frac{1}{4}$ of Sec. 1, T. 16N, R. 16W.

UTM COORDINATES: Zone 12, Northing 3948080, Easting 727160 (Northeast end)
Zone 12, Northing 3947990, Easting 727070 (Southwest end)

ELEVATION: 7045 feet

SITE AREA: 6000 square meters

CULTURAL/TEMPORAL AFFILIATION: Navajo (1900 [?]-1930)

SITE TYPE: Single dwelling temporary camp

ENVIRONMENT: The site is located on the north side of a long east-to-west-trending ridge. Vegetation includes pinyon and juniper with some small but fairly dense stands of sagebrush.

CULTURAL RESOURCES: This site is composed of the remains of a burned hogan (Feature 1), two brush corrals (Features 2 and 3), and a small amount of historic trash. Somewhat isolated from the above features is a conical forked-pole sweathouse (Feature 5), a burned-rock pile (Feature 4), an ash stain (Feature 7), and relatively large area of burned stone and ash (Feature 6) representing the hearth area. The three main poles of the sweat lodge include two of pinyon and one of juniper; the covering poles are all juniper. The earth cover has eroded away.

Artifact density at the site is quite low. Several recent glass bottles are present near Feature 1, however, these appear to be "road trash." Two concentrations of pottery occur at the site, each appears to be the remains of a single broken vessel (one is Navajo Gray and one is Pinyon Gray). The site probably dates to sometime between about 1900 and 1930.

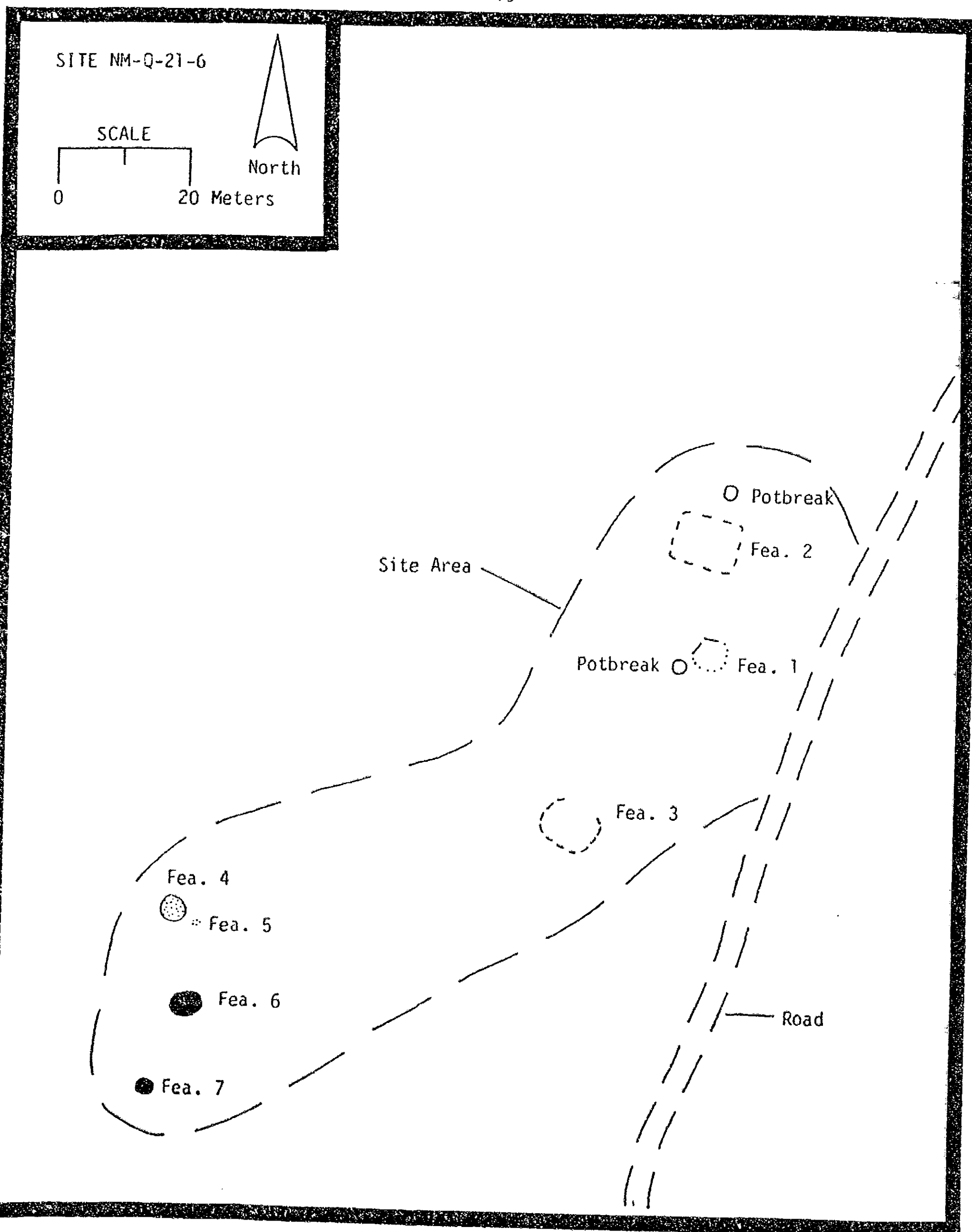


Figure 9. Map of Site NM-Q-21-6.

SITE NUMBER: NM-Q-21-7

MAP REFERENCE: Oak Springs, N. Mex., 7.5 minute, 1963

LEGAL DESCRIPTION: SW $\frac{1}{4}$ of NW $\frac{1}{4}$ of NW $\frac{1}{4}$ and SE $\frac{1}{4}$ of NW $\frac{1}{4}$ of NW $\frac{1}{4}$ of Sec. 1,
T. 16N, R. 16W.

UTM COORDINATES: Zone 12, Northing 3947930, Easting 727125 (Northeast end)
Zone 12, Northing 3947800, Easting 727030 (Southwest end)

ELEVATION: 7050 feet

SITE AREA: 11,250 square meters

CULTURAL/TEMPORAL AFFILIATION: Navajo (1933-1960?)

SITE TYPE: Temporary camp

ENVIRONMENT: The site is located on a ridgetop adjacent to a steep talus slope leading to the valley floor below. Vegetation includes areas of Pinyon/Juniper and a large sagebrush clearing.

CULTURAL RESOURCES: Several features are present at the site including a combination stacked-bough and palisaded windbreak or shade (Feature 1), a second windbreak probably of similar construction (Feature 2), ash stains (Features 4, 5, 8, and 9) a small rock pile of unknown function (Feature 7), and a low mound of earth and charcoal (Feature 6). Feature 10 is a recent soil test pit identical to the one found at Site NM-Q-21-2. Feature 3 is a wood-chopping and trash area.

In comparison to sites such as NM-Q-21-6, artifacts are relatively abundant at this location. Included in the inventory are several sherds of clear and purple glass, various metal cans (lard bucket, baking powder cans, soda or beer cans, etc.), some scattered bone, one chert flake, a quartzite flake, and a Copenhagen can lid. The tobacco can lid dates from 1937 to the present and was found within Feature 1. With Feature 3 is a bottle manufactured in 1933, 1943, or 1953. A glass bottle base found by Features 8 and 9 suggests a date of 1938 to 1969 (or possibly 1908-1935).

SITE NUMBER: NM-Q-21-8

MAP REFERENCE: Oak Springs, N. Mex., 7.5 minute, 1963

LEGAL DESCRIPTION: SW $\frac{1}{4}$ of NW $\frac{1}{4}$ of NW $\frac{1}{4}$ of Sec. 1, T. 16N, R. 16W.

UTM COORDINATES: Zone 12, Northing 3947910, Easting 727000 (center point)

ELEVATION: 7050 feet

SITE AREA: 450 square meters

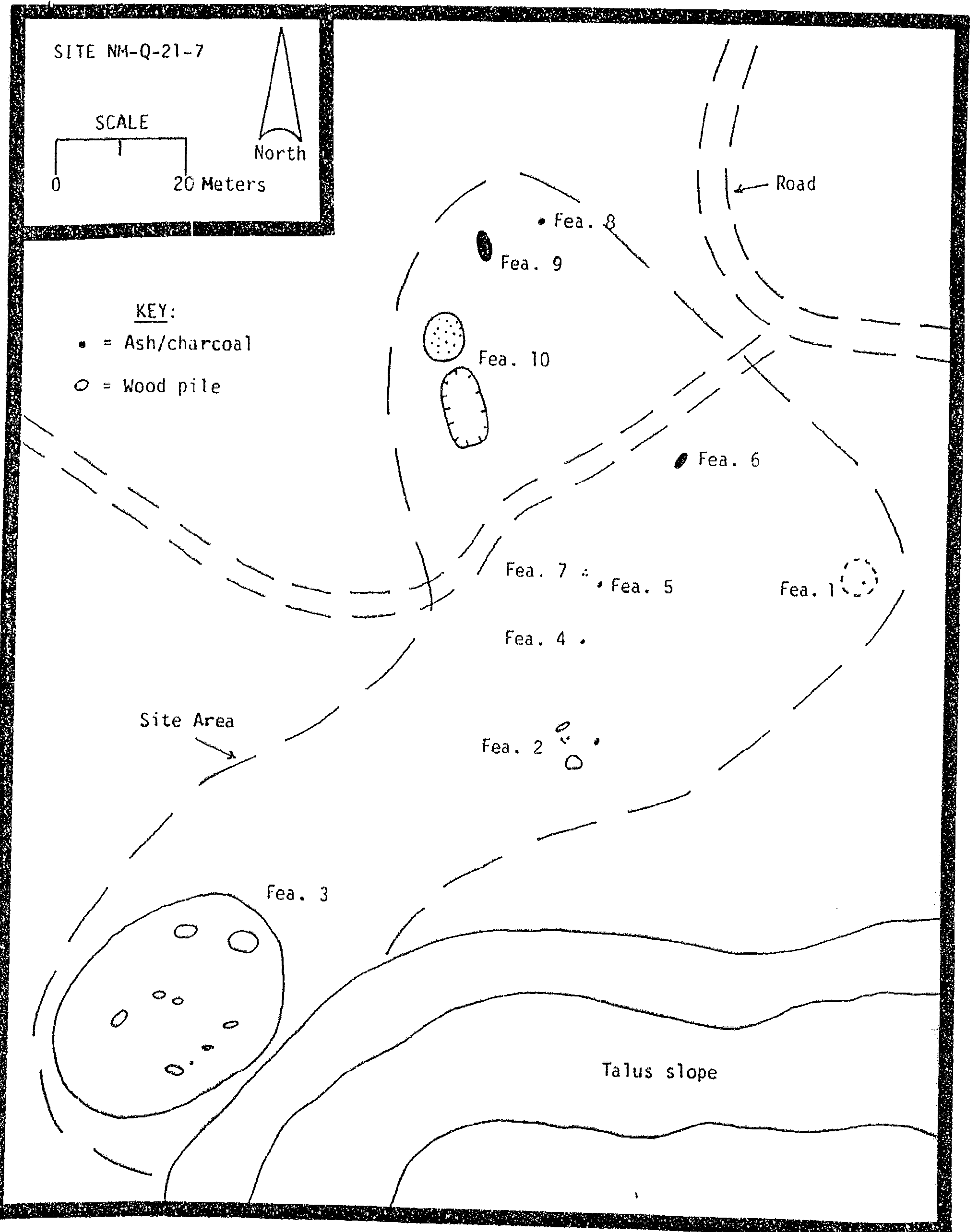
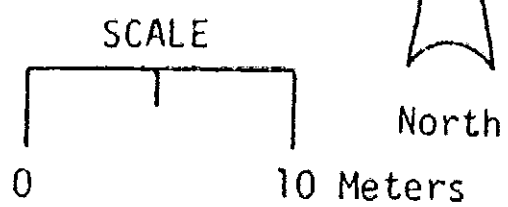


Figure 10. Map of Site NM-Q-21-7.

SITE NM-Q-21-8

KEY:

- = Ash/burned stone
- ⊘ = Wood-chopping debris
- ⊙ = Rock pile
- ⊛ = Depression

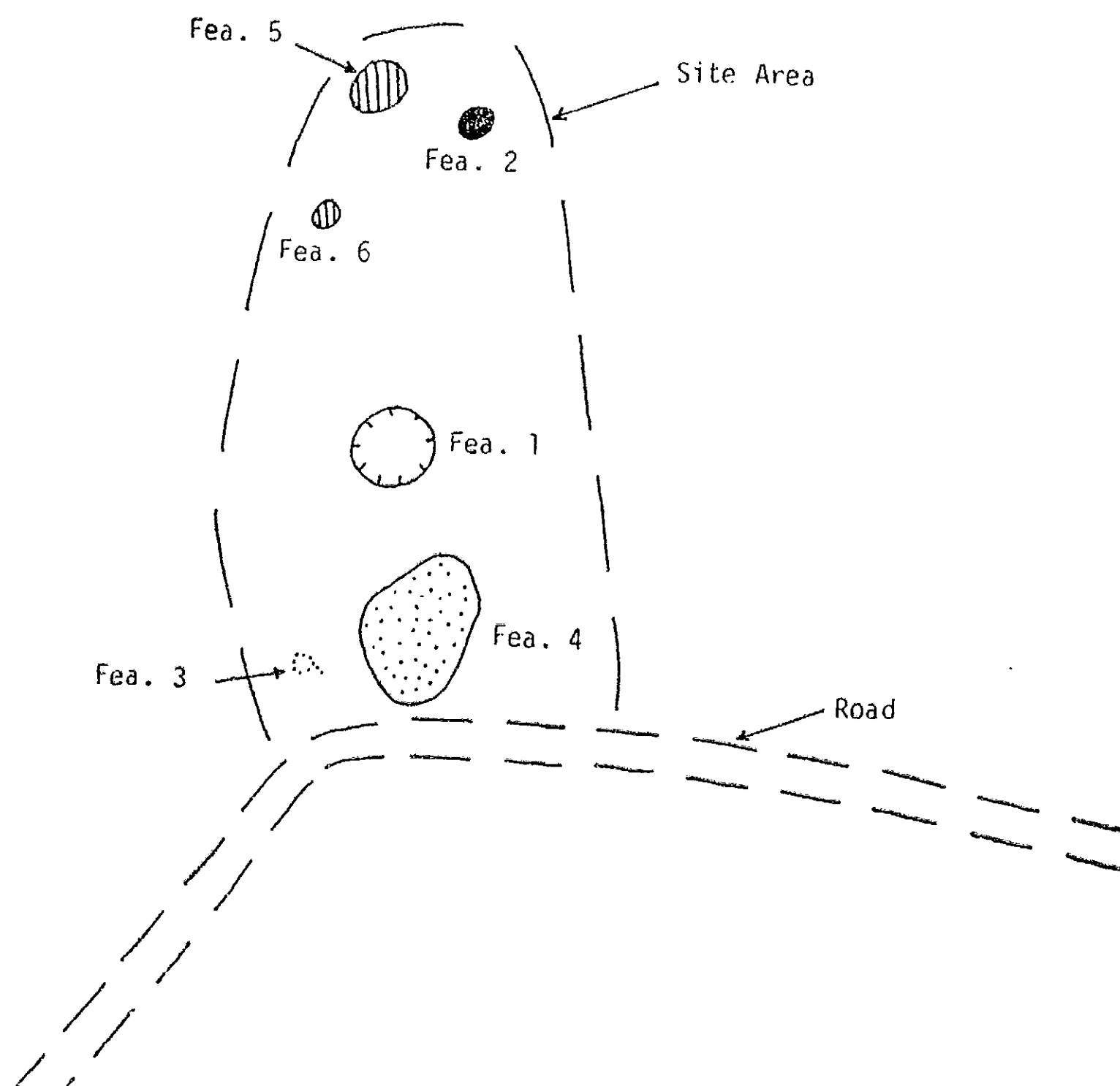


Figure 11. Map of Site NM-Q-21-8.

CULTURAL/TEMPORAL AFFILIATION: Navajo - unknown

SITE TYPE: Single Dwelling Temporary camp

ENVIRONMENT: The site is located near the point of a ridge overlooking the valley floor. The ground slopes down and away from the site in all directions except to the east.

CULTURAL RESOURCES: The site consists of a circular hogan depression (Feature 1), a large and possibly natural scatter of sandstone (Feature 4), a circular rock alignment (Feature 3), two piles of wood debris (Features 5 and 6), and an area of burned stone and ash (Feature 2). Only three artifacts were observed on the site--a wire bottle, a large metal can, and a single sherd of Navajo pottery (Navajo gray). The wire bottle appears to be of recent age and, therefore, may not be associated with the features. The two wood piles also appear to be of relatively recent date.

SITE NUMBER: NM-Q-21-9

MAP REFERENCE: Oak Springs, N. Mex., 7.5 minute, 1963

LEGAL REFERENCE: SE $\frac{1}{4}$ of NW $\frac{1}{4}$ of NW $\frac{1}{4}$ of Sec. 1, T. 16N, R. 16W.

UTM COORDINATES: Zone 12, Northing 3947775, Easting 727300 (center point)

ELEVATION: 7040 feet

SITE AREA: 300 square meters

CULTURAL/TEMPORAL AFFILIATION: Navajo - unknown

SITE TYPE: uncertain

ENVIRONMENT: The site is located along the edge of a narrow valley adjacent to a small side drainage. Sagebrush is almost the only kind of vegetation on the site.

CULTURAL RESOURCES: This site consists of a circular depression (Feature 1) and an ash stain (Feature 2) exposed in the cut bank of the graded dirt road adjacent to Feature 1. Several juniper posts are scattered in and around the depression and there are two sandstone rocks lying on the northwest perimeter of the feature. The remains are probably those of a hogan, however, Feature 1 may have also been a corral or a shade. The only artifacts in the area are limited to a few wine bottles that appear to be "road trash."

Resource Evaluation

In summary, a total of nine single or multiple component Anasazi and Navajo sites were recorded during the survey. An Anasazi "component" at NM-Q-21-4 is represented only by a single pot sherd assuming that Feature 1

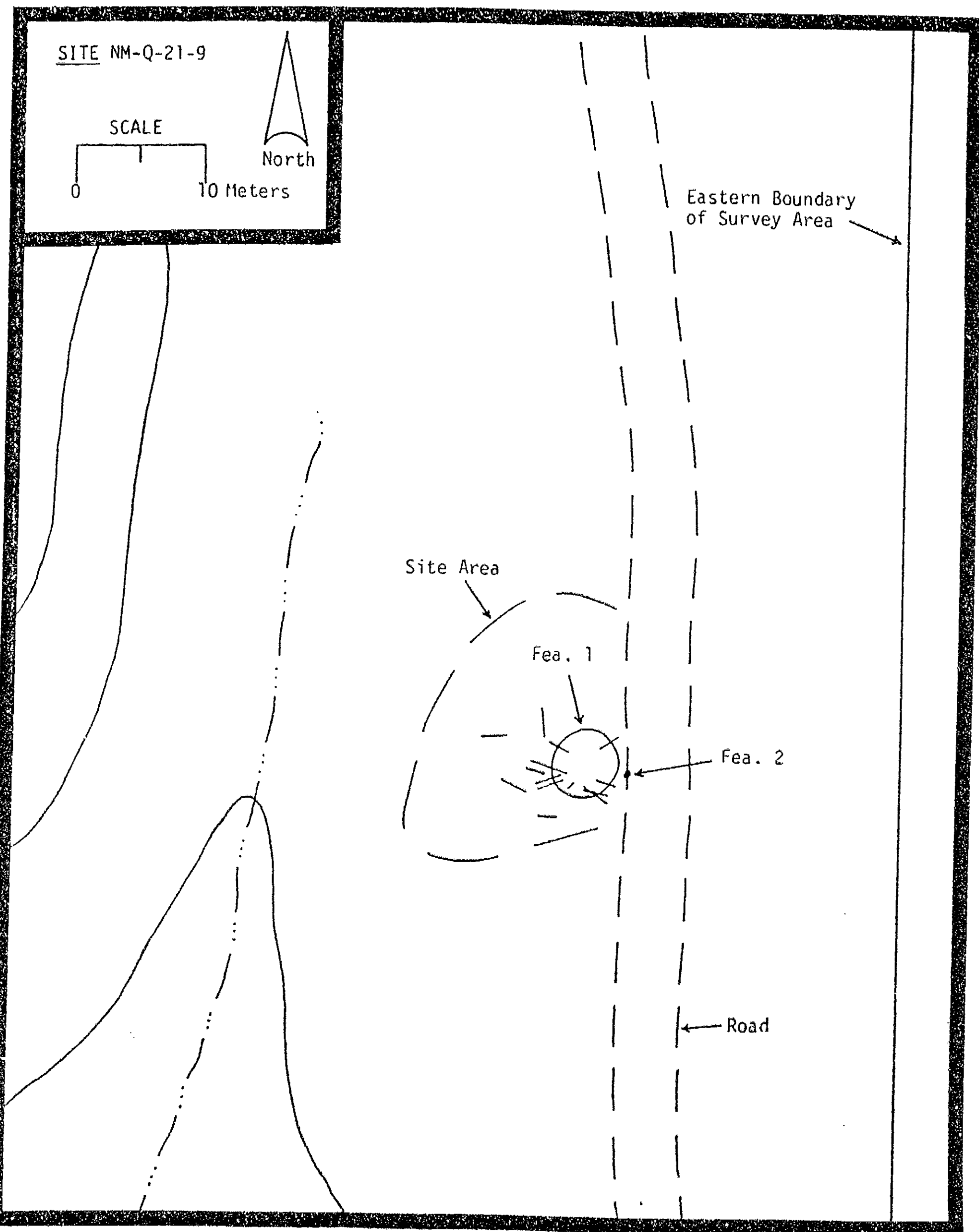


Figure 12. Map of Site NM-Q-21-9.

is historic. A tenth site, a lithic scatter, (Site NM-Q-21-4) is presumably of Anasazi or Navajo cultural affiliation as well. The results are similar to those of previous surveys, which suggest that the majority of the Anasazi sites date to the Pueblo II-III period, while Navajo occupation of the area dates from around the turn of the century to the present time.

Several of the sites recorded during this survey evidence a clear potential for subsurface cultural deposits of variable extent. Subsurface cultural material may be lacking only at the unidentified lithic scatter (Site NM-Q-21-4). The remaining sites all possess some indication that subsurface deposits may be present.

The sites recorded during the project could provide significant information concerning both the local prehistory and history. The character of these resources suggests that they represent seasonally occupied site locations. Therefore, significant information may be available regarding Anasazi and Navajo land-use cycles and seasonal resource exploitation patterns. Artifacts present at certain sites (for example, NM-Q-21-1), however, suggest relatively recent occupations. Thus, these sites (NM-Q-21-1; possibly NM-Q-218 and NM-Q-21-9) may not be eligible for nomination to the National Register of Historic Places. The historic component at Site NM-Q-21-5 also appears to be among the most recent Navajo components recorded during the project.

Recommendations

It is recommended that all of the archaeological sites recorded during the survey be avoided by the proposed project. Due to the relatively high number of sites found within Area 2, it is recommended that all drilling activity within the parcel be monitored. If the actual drilling locations are selected in the field and the boundaries of these areas marked with stakes, then the monitoring of all drilling operations may not be necessary. In other words, a monitor could arrange to meet with representatives of the project sponsor in the field and ensure that the selected drilling areas are located a safe distance from any cultural resource. At this time any access roads, if needed, could be flagged by the monitor.

Site NM-Q-20-5 is located outside the original boundary of Area 2 and, therefore, will probably not be affected by the drilling activity. One well location is proposed for Area 1. The above recommendations should be considered for this parcel as well. As long as all disturbances are confined to the original area 3 location, cultural resource clearance is recommended for this parcel, since site NM-Q-20-5 is situated outside the boundaries of the area as originally defined.

In summary, a comparison of Figures 1 and 2 shows that some of the proposed drilling sites may have to be relocated. Monitoring of all drilling activity in Areas 1 and 2 has been recommended. The in-field determination and marking of the drill site boundaries in these two parcels may alleviate the need for monitoring location construction and actual drilling operations.

References

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- Hudgens, Bruce R.
1980 Archaeological Resource Survey of Santa Fe Mining, Inc. properties located north of Gallup, New Mexico. Church Rock Project-Amendment II. Department of Anthropology, Northern Arizona University, Flagstaff.
- Kemrer, Meade F.
1978 An Archaeological Clearance Survey of two transects of land for Kerr-McGee Corporation. Division of Conservation Archeology Contribution to Anthropology Series 104.
- Popelish, Linda
1984 An archaeological survey of a 23-acre parcel east of Hard Ground Canyon, in Section 27, T. 17N, R. 16W., McKinley County, for Quivira Mining Company. Navajo Nation Cultural Resource Management Program Report 84-117.
- Strnad, John W.
1980 An archaeological resource survey of Santa Fe Mining, Inc. properties located north of Gallup, New Mexico. Church Rock Project-Amendment IV. Department of Anthropology, Northern Arizona University, Flagstaff.

NAVAJO NATION CULTURAL RESOURCE MANAGEMENT PROGRAM

Isolated Occurrence Record

I.O. No. 1 Project Name Test/Monitor Well Locations for CH 2 M Hill CRMP-84-200

Archaeologist(s) Jim Copeland Date 5-23-84

T.M. Zone 12 N 3946850 m, E 725315 m, T 16N R 16W, SE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 3

State New Mexico County McKinley Chapter Pinedale

Land Status Reservation USGS Map, Date Hard Ground Flats, N. Mex., 1963

Topography narrow valley floor by deep arroyo

Vegetation Russian thistle, snakeweed

Surface visibility good

Nearest drainage intermittent tributary of the Puerco River

Elevation 6890 feet (2100 meters) Slope about 1 degree west

Soil brown sandy alluvium Area I.O. point provenience

Cultural Affiliation Anasazi/Pueblo II or III

Date A.D. 900-1300 How dated ceramics

Description: Single artifact 1 # of artifacts Structural remains Nonstructural
(circle) Other _____ feature

Detailed description of I.O.: This isolated artifact is simply a single corrugated
gray ware body sherd with sand temper.

Interpretation: Isolated ceramic debris

Possible site association NM-Q-20-5

Collection: Yes _____ No X Describe _____

Photos: No X Roll # _____ Frame _____

Photo attached: Yes _____ No X I.O. drawing attached: Yes _____ No X

Other comments: _____

NAVAJO NATION CULTURAL RESOURCE MANAGEMENT PROGRAM

Isolated Occurrence Record

I.O. No. 2 Project Name Test/Monitor Well Locations for CH 2 M Hill

Archaeologist(s) Tim McEnany

CRMP-84-200

UTM Zone 12 N 3947600 m, E 727810 m, T 16N R 16W, SW 1 NW 1 of Section 1

Date 5-23-84

State New Mexico County McKinley Chapter Pindale

Land Status Reservation

USGS Map, Date Oak Springs, N. Mex., 1963

Topography sagebrush-covered narrow valley floor

Vegetation sagebrush, grama grass

Surface visibility good

Nearest drainage intermittent tributary of the Puerco River

Elevation 7035 feet (2144 meters)

Slope 2-3 degrees west

Soil brown sandy alluvium

Area I.O. point provenience

Cultural Affiliation Anasazi/Pueblo II-III

Date A.D. 1000-1125

How dated ceramics

Description: Single artifact
(circle) Other

1 # of artifacts

Structural remains

Nonstructural
feature

Detailed description of I.O.: This isolated artifact is a single black-on-white sherd.

It is probably from a Gallup Black-on-white (or Puerco Black-on-white) bowl.

Interpretation: Isolated ceramic debris

Possible site association NM-Q-21-5

Collection: Yes No X Describe

Photos: No X Roll # Frame

Photo attached: Yes No X

I.O. drawing attached: Yes No X

Other comments:

NAVAJO NATION CULTURAL RESOURCE MANAGEMENT PROGRAM

Isolated Occurrence Record

I.O. No. 3 Project Name Test/Monitor Well Locations for CH 2 M Hill

CRMP-84-200

Archaeologist(s) Jim Copeland

Date 5-24-84

UTM Zone 12 N 3947450 m, E 727150 m, T 16N R 16W, SW 1 NW 1 of Section 1

State New Mexico County McKinley Chapter Pinedale

Land Status Reservation

USGS Map, Date Oak Springs, N. Mex., 1963

Topography valley floor near ridge point

Vegetation sagebrush, grama grass

Surface visibility good

Nearest drainage intermittent tributary of the Puerco River

Elevation 7010 feet (2136 meters) Slope 2-3 degrees northwest

Soil brown sandy loam Area I.O. point provenience

Cultural Affiliation Anasazi/Pueblo II-III

Date A.D. 1000-1125

How dated ceramics

Description: Single artifact 1 # of artifacts Structural remains Nonstructural
(circle) Other feature

Detailed description of I.O.: This isolated artifact is a single sherd of Gallup or
Puerco Black-on-white.

Interpretation: Isolated ceramic debris

Possible site association NM-Q-21-5

Collection: Yes No X Describe

Photos: No X Roll # Frame

Photo attached: Yes No X

I.O. drawing attached: Yes No X

Other comments:

NAVAJO NATION CULTURAL RESOURCE MANAGEMENT PROGRAM

Isolated Occurrence Record

I.O. No. 4 Project Name Test/Monitor Well Locations for Ch 2 M Hill CRMP-84- 200

Archaeologist(s) Linda Popelish Date 5-24-84

UTM Zone 12 N 3947490 m, E 727025 m, T 16N R 16W, SW 1 NW 1 of Section 1

State New Mexico County McKinley Chapter Pinedale

Land Status Reservation USGS Map, Date Oak Springs, N. Mex., 1963

Topography small hill or mound on valley floor

Vegetation snakeweed, sagebrush

Surface visibility good

Nearest drainage intermittent tributary of the Puerco River

Elevation 7010 feet (2136 meters) Slope variable

Soil brown sandy loam Area I.O. 200 square meters

Cultural Affiliation unknown (presumably Anasazi or Navajo)

Date unknown How dated N/A

Description: Single artifact 4 of artifacts Structural remains Nonstructural
(circle) Other feature

Detailed description of I.O.: The isolated occurrence consists of four plain gray ware
body sherds, apparently from the same vessel.

Interpretation: isolated potbreak

Possible site association NM-Q-21-5

Collection: Yes No X Describe

Photos: No X Roll # Frame

Photo attached: Yes No X I.O. drawing attached: Yes No X

Other comments:

NAVAJO NATION CULTURAL RESOURCE MANAGEMENT PROGRAM

Isolated Occurrence Record

I.O. No. 5 Project Name Test/Monitor Well Locations for CH 2 M Hill CRMP-84- 200

Archaeologist(s) Jim Copeland Date 5-24-84

UTM Zone 12 N 3947725 m, E 727010 m, T 16N R 16W, SW 4 NW 4 of Section 1

State New Mexico County McKinley Chapter Pinedale

Land Status Reservation USGS Map, Date Oak Springs, N. Mex., 1963

Topography valley floor at base of talus slope

Vegetation sagebrush and rabbitbrush

Surface visibility good

Nearest drainage intermittent tributary of the Puerco River

Elevation 7020 feet (2139 meters) Slope about 10 degrees southwest

Soil brown sandy loam Area I.O. 20 square meters

Cultural Affiliation Anasazi/BM III to Pueblo III

Date A.D. 500-1300 How dated ceramics

Description: Single artifact 3 # of artifacts Structural remains Nonstructural
(circle) Other _____ feature

Detailed description of I.O.: This isolated occurrence consists of three unidentified white ware sherds.

Interpretation: isolated ceramic debris

Possible site association NM-Q-21-5

Collection: Yes _____ No X Describe _____

Photos: No X Roll # _____ Frame _____

Photo attached: Yes _____ No X I.O. drawing attached: Yes _____ No X

Other comments: _____

Site Survey and Management Form

Site NM-Q-21-1 Field or other name Site 1 Project NNCRMP 84-200

Project Background Test/monitor wells for CH 2 M Hill

Organization NNCRMP Archaeologist(s) Tim McEnany Date 5-23-84
(unplatted)

1/4 1/4 1/4 Section 36 Township 17 (N) S Range 16 E (W)

UTM Zone 12, 3 9 4 9 0 2 0 N, 7 2 7 4 3 0 E.; 3 9 4 8 9 4 0 N, 7 2 7 3 2 5 E.

State New Mexico County McKinley Chapter Nahodishgish

Land Status: Reservation Fee Land Allotment Lease Private Other

USGS Map Reference Oak Springs, N. Mex Map Date 1963 On lab Map? Yes No

Ground visibility: Kind and extent of cover? light to moderate shrub/tree cover

Topography ridgetop at valley side

Drainage intermittent tributary of the Puerco River

Elevation 7000-7040 feet Slope 5 degrees Direction of slope southwest

Soil: Clay Silt Sand Gravel Humus Loam Other

Vegetation present: Pinyon, juniper, sagebrush, and rabbitbrush

Cultural Affiliation: Archaic Anasazi Navajo Hispanic Anglo Other Unknown

Date of site 1934(?) - 1977 How dated? bottle bases

Dimensions of site: Core area 80 by 20 m Total area 150 by 70 m (10,500 sq. m)

measured paced eyeballed other

Architecture present? Yes No Describe: collapsed masonry wall in front of small rock shelter and a short, low, coarsed sandstone rock alignment

Artifacts observed/counted: ceramics 0 lithics 0 metal 16 other 22

Collections made? Yes No Of What? Method

Photos taken? Yes No B/W: Roll Frames Color: Roll Frames

Site Description: The site is a fairly recent Navajo temporary camp site located on and at the base of a narrow ridgetop. The earliest use of the area may date to about 1934, although most of the artifacts present suggest a more recent date. The following

Site NM-Q-21-1 Field or other name Site 1 Project NNCRMP 82-200

features were observed: (see continuation sheet)

Condition of site: Excellent Good Fair Poor Causes of disturbance

Location of Site relative to project area: Within At edge Adjacent Other

Effect on project: None Avoidable Unavoidable

Extent of investigations to date: Recording Collection Testing Excavation Other

Research potential: Recent Navajo subsistence/settlement patterns

Recommendations: avoidance

Reported on in: NNCRMP 82-200

Provide a site map, including site designation, North arrow, scale, recognizable features and landmarks.

Additional information in project file? Yes No

Other Comments:

How can the site be reached? (Include a map showing roads and landmarks)

see USGS map

CONTINUATION SHEET: Site NM-Q-21-1

Site Description:

Feature 1: Rectangular sandstone alignment measuring 45 cm long and 35 cm wide (interior dimensions). The ashy fill and fire-reddened condition of the surrounding rocks suggests that this feature functioned as a hearth.

Feature 2: 1.1 m long and 15 cm high (3 courses) linear rock alignment by Feature 1.

Feature 3: Area of ash and burned sandstone measuring about 1.5 m in diameter located adjacent to a large sandstone block eroding out on the ridgetop.

Feature 4: Small rockshelter with a collapsed masonry wall in front of the overhang. The shelter measures about 1.5 m long, 1.25 m wide, and 2.0 high. The masonry wall stands to a height of about 30 cm (3 courses) in two places, however, only the single foundation course remains elsewhere along the L-shaped alignment. The amount of scattered rubble in the area suggests that the wall was perhaps a maximum of 4 courses in height. The rear wall and a portion of the shelter ceiling are fire-reddened.

Feature 5: Small, natural hole in the sandstone outcrop on the ridgetop that appears to be fire-reddened inside. Scattered charcoal was observed on the ground surface below the opening and inside the hole.

Feature 6: Wood-chopping area about 20 m in diameter located at the base of the ridgetop. A small amount of recent trash occurs among the chopping debris.

Feature 7: Small pile of sandstone and a few cement block fragments located at the base of the ridge near Feature 4.

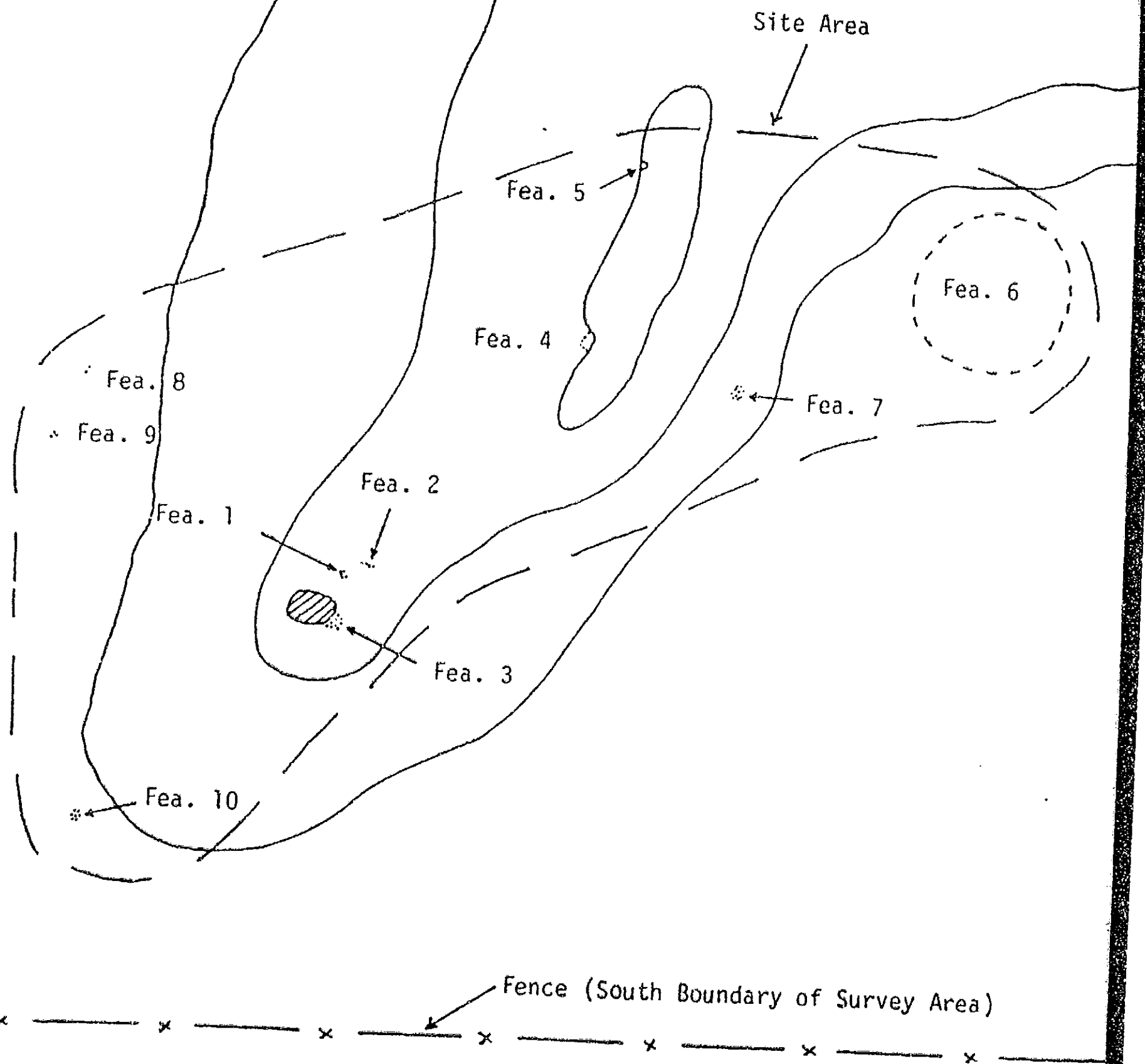
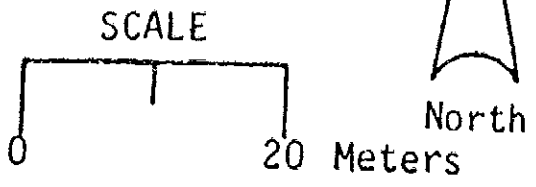
Feature 8: Two burned (?) sandstone rocks and one whiskey bottle found at the base of the ridgetop.

Feature 9: Three pieces of sandstone (2 burned) and the legs from a folding wooden stool located near Feature 8.

Feature 10: Charred juniper tree and a pile of burned sandstone and ash located at the base of ridge point.

Artifacts observed on the site included a Skoal can lid, pull-tab soda cans, liquor bottles, an orange juice bottle (made in 1977 and associated with Feature 6), a Vicks Vap-O-Rub bottle sherd, and some metal food containers. The base of an Alka-Seltzer bottle (made in 1934, 1944, or 1954) was found near Feature 4. Several metal and plastic shotgun shells were also present.

SITE NM-Q-21-1



SITING AND SURVEILLANCE MANAGEMENT PROGRAM
Site Survey and Management Form

Site NM-Q-20-5 Field or other name Site 2 Project NNCRMP 84-200

Project Background Test/monitor wells for CH 2 M Hill

Organization NNCRMP Archaeologist(s) Tim McEnany Date 5-23-84

NE 1/4 NE 1/4 NE 1/4 Section 10 Township 16 (N) E
S Range 16 (W)

UTM Zone 12 , 3 9 4 6 4 7 5 N, 7 2 5 2 3 0 E.; N, E.

State New Mexico County McKinley Chapter Pinedale

Land Status: Reservation Fee Land Allotment Lease Private Other _____

Hard Ground
USGS Map Reference Flats, N. Mex. Map Date 1963 On lab Map? Yes No

Ground visibility: Kind and extent of cover? light to moderate shrub/tree cover

Topography base of talus slope at valley side

Drainage intermittent tributary of the Puerco River

Elevation 6910 feet Slope 5 degrees Direction of slope west

Soil: Clay Silt Sand Gravel Humus Loam Other _____

Vegetation present: Pinyon, juniper, sagebrush, prickly-pear cactus

Cultural Affiliation: Archaic Anasazi Navajo Hispanic Anglo Other _____ Unknown

late Pueblo II /
Date of site early Pueblo III How dated? ceramics

Dimensions of site: Core area 70 by 20 m Total area same (1400 sq. m)

measured paced eyeballed other _____

Architecture present? Yes No Describe: slab lined cist, D-shaped hearth(?)

Artifacts observed/counted: ceramics 23 lithics 1 metal 0 other 0

Collections made? Yes No Of What? _____ Method _____

Photos taken? Yes No B/W: Roll _____ Frames _____ Color: Roll _____ Frames _____

Site Description: This site appears to be a late Pueblo II to early Pueblo III camp site

located at the base of a fairly steep talus slope along the valley side. Three features

were observed at the site--a slab cist or hearth, a small circular rock alignment, and

Site NM-Q-20-5 Field or other name Site 2 Project NNCRMP 84-200

a pile of burned (?) sandstone. Feature 1 consists of two unshaped sandstone blocks set into the ground at a right angle to each other. The feature measures about 0.5 m square and presumably functioned as a hearth or slab storage cist.

(see continuation sheet)

Condition of site: Excellent Good Fair Poor Causes of disturbance _____

Location of Site relative to project area: Within At edge Adjacent Other _____

Effect on project: None Avoidable Unavoidable _____

Extent of investigations to date: Recording Collection Testing Excavation Other _____

Research potential: Anasazi subsistence and settlement

Recommendations: avoidance

Reported on in: NNCRMP 84-200

Provide a site map, including site designation, North arrow, scale, recognizable features and landmarks.

Additional information in project file? Yes No

Other Comments:

How can the site be reached? (Include a map showing roads and landmarks)

see USGS map

CONTINUATION SHEET: Site NM-Q-20-5

Site Description:

Feature 2 is a circular arrangement of sandstone located next to a large boulder. The feature measures about 0.75 m in diameter; the fill is not ashy. Feature 3 is a 3.0 by 1.75 m pile of sandstone; some are possibly fire-reddened.

Artifacts observed at the site included only 23 sherds and a single chert flake. The former included 12 gray corrugated, 5 white ware, and 3 black-on-white sherds. These artifacts probably account for most of the cultural material present at the site.

SITE NM-Q-20-5

SCALE

0 10 Meters



North

KEY:

 = Talus BoulderEastern Boundary
of Survey Area 3

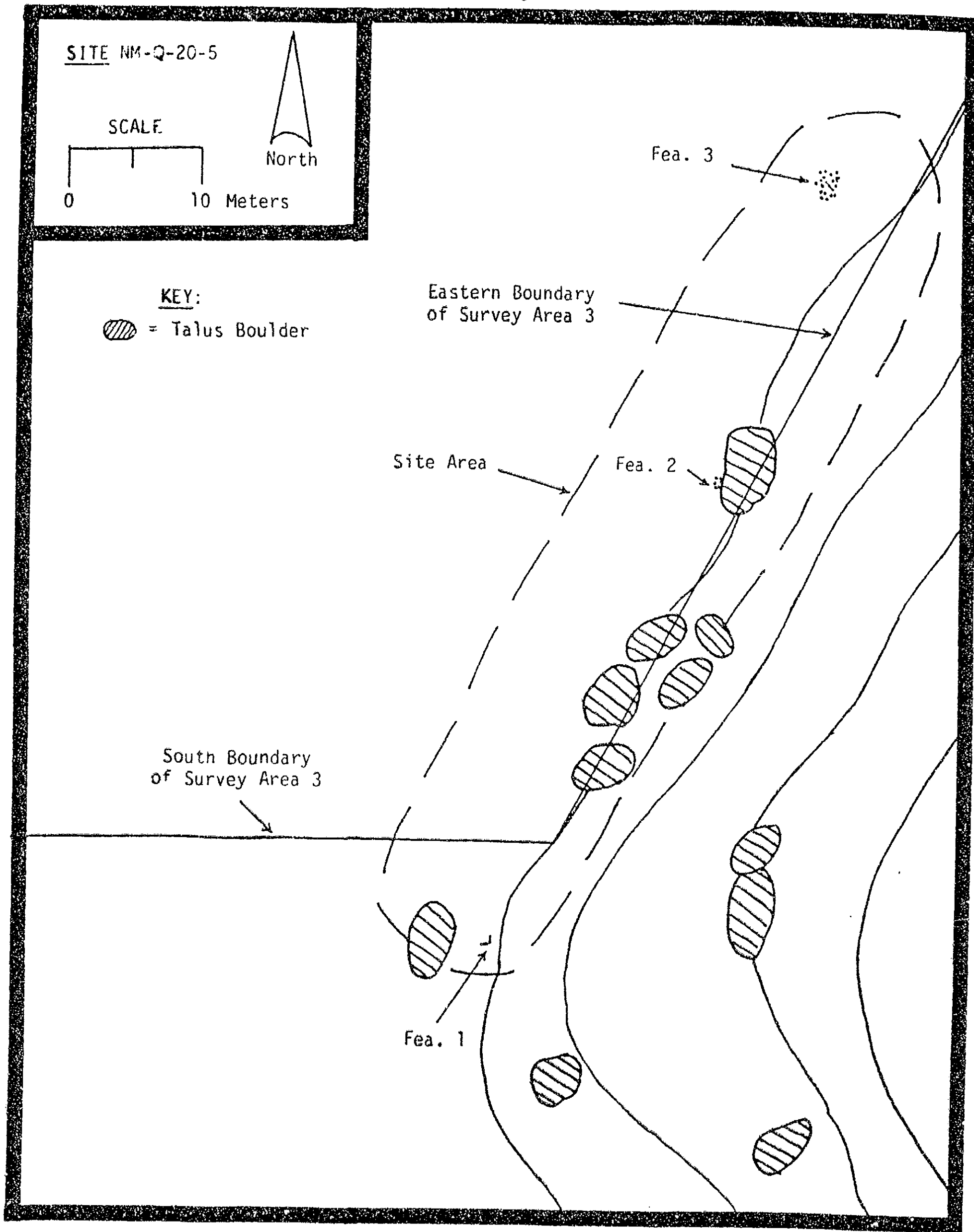
Site Area

Fea. 2

South Boundary
of Survey Area 3

Fea. 1

Fea. 3



SCHOOL MANAGEMENT PROGRAM
Site Survey and Management Form

Site NM-Q-21-2 Field or other name Site 3 Project NNCRMP 84-200

Project Background Test/monitor well locations for CH 2 M Hill

Organization NNCRMP Archaeologist(s) James Copeland Date 5-24-84

SW 1/4 SW 1/4 NW 1/4 Section 1 Township 16 (N) S Range 16 E (W)

UTM Zone 12, 3 9 4 7 4 1 0 N, 7 2 7 0 1 OE.; N, E.

State New Mexico County McKinley Chapter Pinedale

Land Status: Reservation Fee Land Allotment Lease Private Other

USGS Map Reference Oak Springs, N. Mex. Map Date 1963 On lab Map? Yes No

Ground visibility: Kind and extent of cover? light to moderate shrub cover

Topography sage-covered valley bottom

Drainage intermittent tributary of the Puerco River

Elevation 7010 feet Slope 2-3 degrees Direction of slope northwest

Soil: Clay Silt Sand Gravel Humus Loam Other

Vegetation present: sagebrush, snakeweed, grama grass

Cultural Affiliation: Archaic Anasazi Navajo Hispanic Anglo Other Unknown

Pueblo II/III
Date of site 1900-1930(?) How dated? ceramics, bottle bases, cans

Dimensions of site: Core area 25 by 15 m Total area 70 by 60 m (4200 sq. m)

measured paced eyeballed other

Architecture present? Yes No Describe: sandstone rock pile possibly representing an oven

Artifacts observed/counted: ceramics 1 lithics 0 metal 32 other 50

Collections made? Yes No Of What? Method

Photos taken? Yes No B/W: Roll Frames Color: Roll Frames

Site Description: The site consists of a scatter of historical trash, one Pueblo II-III Anasazi black-on-white sherd, and one feature of unknown function. The historic presumably of Navajo cultural affiliation (see continuation sheet)

Site NM-Q-21-2 Field or other name Site 3 Project NNCRMP 84-200

Condition of site: Excellent Good Fair Poor Causes of disturbance _____

Location of Site relative to project area: Within At edge Adjacent Other _____

Effect on project: None Avoidable Unavoidable _____

Extent of investigations to date: Recording Collection Testing Excavation Other _____

Research potential: Limited excavation potential/informant interviews could provide some significant information.

Recommendations: avoidance

Reported on in: NNCRMP 84-200

Provide a site map, including site designation, North arrow, scale, recognizable features and landmarks.

Additional information in project file? Yes No

Other Comments:

How can the site be reached? (Include a map showing roads and landmarks)

see USGS map

CONTINUATION SHEET: Site NM-Q-21-2

Site Description:

Feature 1 is simply a low pile of sandstone measuring about 1.0 m in diameter. This feature may represent an oven, however, no ash stain is evident and the stone exhibits little possible evidence of exposure to fire. Feature 2 is a modern soil test pit with an associated accumulation of rock and earth.

Artifacts observed on the site include several cap soldered hole-in-top cans, a leaf-spring for a wagon or automobile, bottle bases and sherds, some milled lumber scraps, and 2 cartridge cases. One purple glass base may date to between 1893 and 1896 (Hamilton Glass Co. Trademark). Both the metallic shell cases are 12 gauge shotgun shells. One dates from 1901 to the present while no information was obtainable for the second casing.

SITE NM-Q-21-2

SCALE



North

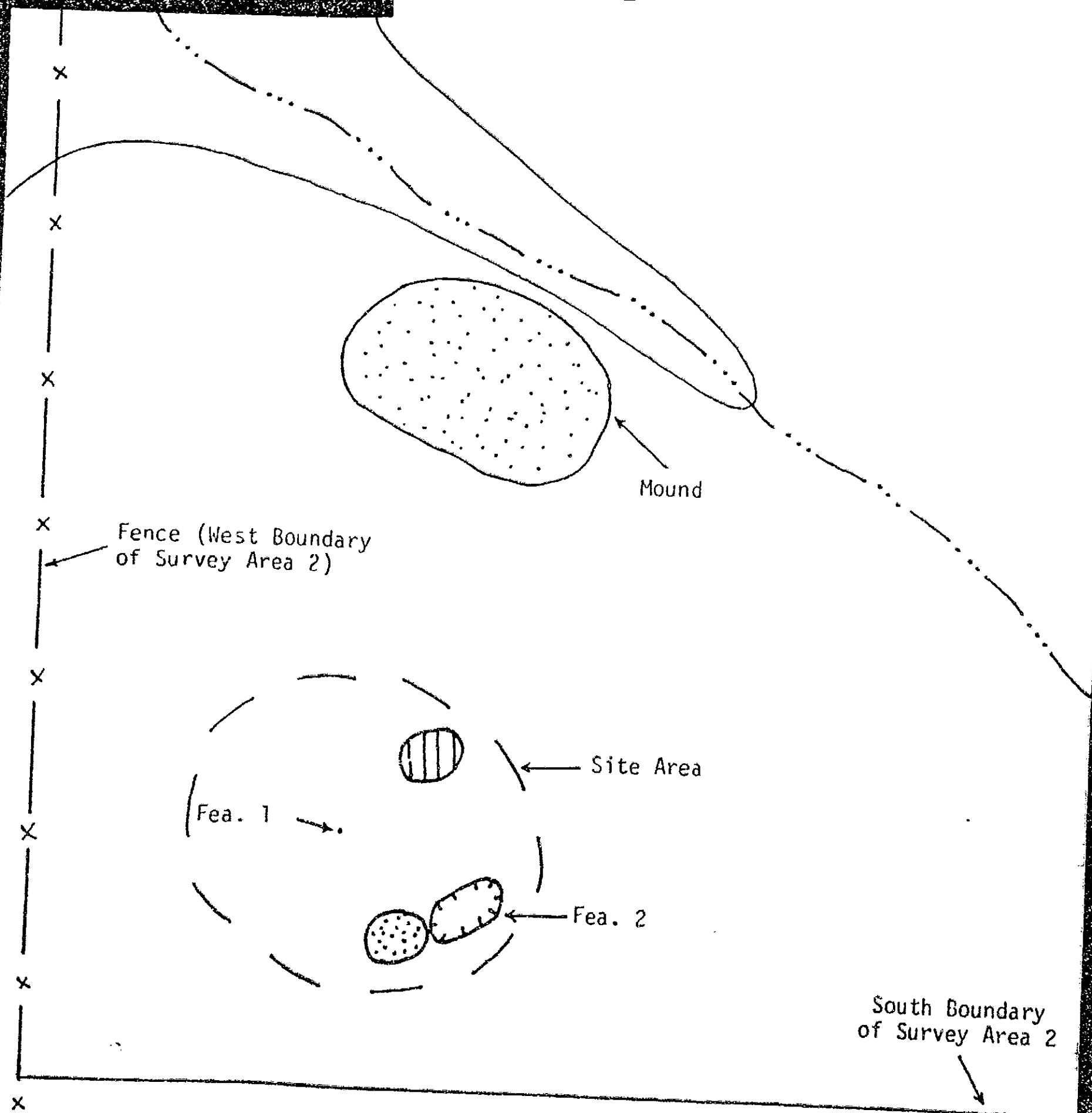
Meters

KEY:

= Artifact Concentrations

= Rock and Earth Mound

= Depression



SOUTHWESTERN CULTURAL RESOURCE MANAGEMENT PROGRAM
Site Survey and Management Form

Site NM-Q-21-3 Field or other name Site 4 Project NNCRMP 84-200

Project Background Test/monitor well locations for CH 2 M Hill

Organization NNCRMP Archaeologist(s) Jim Copeland Date 5-24-84

SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 1 Township 16 (N) E
S Range 16 (W)

UTM Zone 12, 3 9 4 7 3 8 0 N, 7 2 7 1 5 OE.; N, E.

State New Mexico County McKinley Chapter Pinedale

Land Status: Reservation Fee Land Allotment Lease Private Other

USGS Map Reference Oak Springs, N. Mex. Map Date 1963 On lab Map? Yes No

Ground visibility: Kind and extent of cover? sparse grass and moderate shrub cover

Topography natural earth mound on sage-covered valley floor

Drainage intermittent tributary of the Puerco River

Elevation 7035 feet Slope variable Direction of slope variable

Soil: Clay Silt Sand Gravel Humus Loam Other

Vegetation present: sagebrush, pinyon and juniper (nearby site), cheatgrass

Cultural Affiliation: Archaic Anasazi Navajo Hispanic Anglo Other Unknown

Date of site Pueblo II-III How dated? ceramics

Dimensions of site: Core area 30 by 30 m Total area same (900 sq. m)

measured paced eyeballed other

Architecture present? Yes No Describe: a rock alignment of unknown function

Artifacts observed/counted: ceramics 22 lithics 1 metal 3 other 2

Collections made? Yes No Of What? Method

Photos taken? Yes No B/W: Roll Frames Color: Roll Frames

Site Description: The site consists of two ceramic concentrations, a trough metate fragment, and a rock feature of unknown function. Also present on the site is a small

Site NM-Q-21-3 Field or other name Site 4 Project NNCRMP 84-200

Condition of site: Excellent Good Fair Poor Causes of disturbance _____

Location of Site relative to project area: Within At edge Adjacent Other _____

Effect on project: None Avoidable Unavoidable _____

Extent of investigations to date: Recording Collection Testing Excavation Other _____

Research potential: uncertain _____

Recommendations: avoidance _____

Reported on in: NNCRMP 84-200 _____

Provide a site map, including site designation, North arrow, scale, recognizable features and landmarks.

Additional information in project file? Yes No

Other Comments:

How can the site be reached? (Include a map showing roads and landmarks)
see USGS map

CONTINUATION SHEET: Site NM-Q-21-3

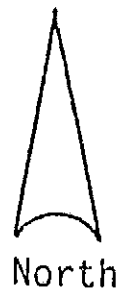
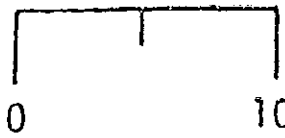
Site Description:

The most prominent feature at the site is a high, natural earth and rock mound adjacent to a small, but deeply entrenched, drainage. Two concentrations of ceramics occur at the base of the mound at the top edge of the drainage. A trough metate fragment was observed within Concentration B.

Feature 1 is an unusual rock pile/alignment located on the southwest side of the mound. It consists of a small pile of sandstone and two roughly linear alignments which extend out along the mound base. The rocks are all fairly large and most are unshaped; one large thick slab appeared to have been deliberately fashioned into an egg-shaped block with two flat faces and rounded sides.

SITE NM-Q-21-3

SCALE



North

KEY:

⊘ = Artifact Concentration

Base of Mound

Site Area

Fea. 1

A

B

South Boundary of Survey Area 2

INDIAN NATION CULTURAL RESOURCE MANAGEMENT PROGRAM

Site Survey and Management Form

Site NM-Q-21-4 Field or other name Site 5 Project NNCRMP 84-200

Project Background Test/monitor well locations for CH 2 M Hill

Organization NNCRMP Archaeologist(s) Jim Copeland Date 5-24-84

SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 1 Township 16 (N) E
S Range 16 (W)

UTM Zone 12 3 9 4 7 4 4 0 N, 7 2 7 2 3 OE.; N, E.

State New Mexico County McKinley Chapter Pinedale

Land Status: Reservation Fee Land Allotment Lease Private Other

USGS Map Reference Oak Springs, N. Mex. Map Date 1963 On lab Map? Yes No

Ground visibility: Kind and extent of cover? light shrub/tree cover

Topography side and base of low ridge at valley side

Drainage intermittent tributary of the Puerco River

Elevation 7050 feet Slope 10-20 degrees Direction of slope north

Soil: Clay Silt Sand Gravel Humus Loam Other

Vegetation present: pinyon, juniper, sagebrush

Cultural Affiliation: Archaic Anasazi Navajo Hispanic Anglo Other Unknown

Date of site unknown How dated? N/A

Dimensions of site: Core area 25 by 25 m Total area same (625 sq. m)

measured paced eyeshalled other

Architecture present? Yes No Describe:

Artifacts observed/counted: ceramics 0 lithics 9 metal 0 other 0

Collections made? Yes No Of What? point Method

Photos taken? Yes No B/W: Roll Frames Color: Roll Frames

Site Description: The site is a small lithic scatter located on the north slope

of a long, east to west trending ridgetop. Approximately 10 to 15 flakes/angular

Site NM-Q-21-4 Field or other name Site 5 Project NNCRMP 84-200

projectile point was also found at the site (see continuation sheet)

Condition of site: Excellent Good Fair Poor Causes of disturbance _____

Location of Site relative to project area: Within At edge Adjacent Other _____

Effect on project: None Avoidable Unavoidable _____

Extent of investigations to date: Recording Collection Testing Excavation Other _____

Research potential: minimal

Recommendations: avoidance

Reported on in: NNCRMP 84-200

Provide a site map, including site designation, North arrow, scale, recognizable features and landmarks.

Additional information in project file? Yes No

Other Comments:

How can the site be reached? (Include a map showing roads and landmarks)

see USGS map

CONTINUATION SHEET: Site NM-Q-21-4

Site Description:

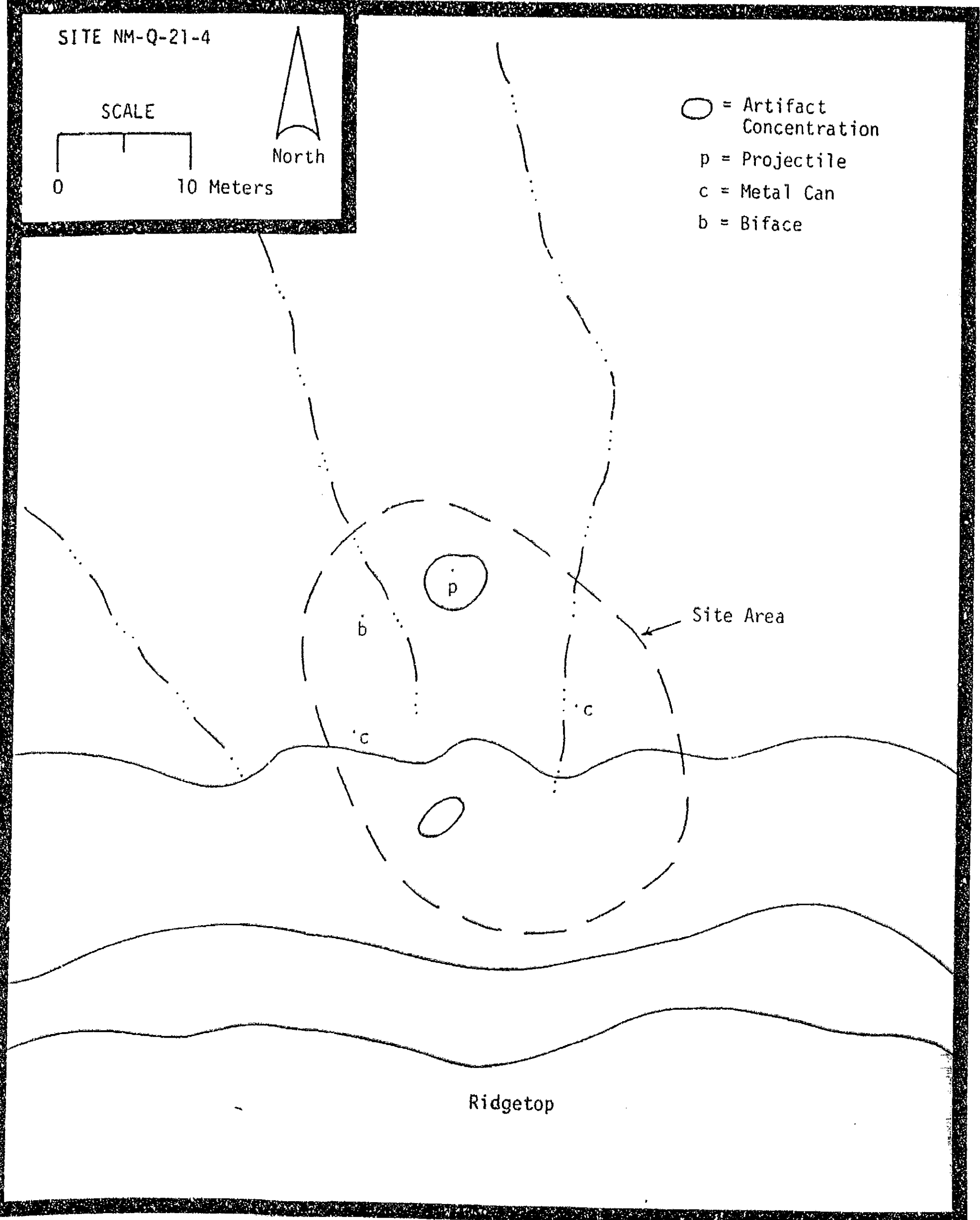
The lithic materials include various colors of chert. Of the 7 flakes examined closely, 4 were cortical and 3 were noncortical flakes. The biface fragment appears to be the midsection of a white chert projectile point. A small, complete corner notched point of red, white, and gray chert was collected from the site. Three flakes of this material were observed suggesting that this point may have been manufactured at the site.

SITE NM-Q-21-4

SCALE
0 10 Meters



○ = Artifact
Concentration
p = Projectile
c = Metal Can
b = Biface



NATIONAL CULTURAL RESOURCE MANAGEMENT PROGRAM

Site Survey and Management Form

Site NM-Q-21-5 Field or other name Site 6 Project NNCRMP 84-200

Project Background Test/monitor well locations for CH 2 M Hill

Organization NNCRMP Archaeologist(s) Jim Copeland Date 5-24-84

SE SW NW (N) E
SW 1/4 SE 1/4 NW 1/4 Section 1 Township 16 S Range 16 (W)

UTM Zone 12, 3 9 4 7 3 7 0 N, 7 2 7 3 2 0 E.; 3 9 4 7 4 4 0 N, 7 2 7 3 6 0 E.

State New Mexico County McKinley Chapter Pinedale

Land Status: Reservation Fee Land Allotment Lease Private Other

Oak Springs,
USGS Map Reference N. Mex. Map Date 1963 On lab Map? Yes No

Ground visibility: Kind and extent of cover? Moderate shrub/tree cover

Topography gently sloping ridge side at narrow valley side

Drainage intermittent tributary of the Puerco River

Elevation 7,050 feet Slope 2-5 degrees Direction of slope north

Soil: Clay Silt Sand Gravel Humus Loam Other

Vegetation present: pinyon, juniper, sagebrush, yucca, prickly-pear cactus, and paintbrush

Cultural Affiliation: Archaic Anasazi Navajo Hispanic Anglo Other Unknown

Date of site Pueblo II-III
ca. 1954 How dated? ceramics, bottle base

Dimensions of site: Core area 100 by 80 m Total area same (8000 sq. m)

measured paced eyeballed other

Architecture present? Yes No Describe: single-room masonry unit, brush corral, and a collapsed corbelled log hogan.

Artifacts observed/counted: ceramics estimated 200 lithics 4 metal 4 other 7

Collections made? Yes No Of What? Method

Photos taken? Yes No B/W: Roll Frames Color: Roll Frames

Site Description: The site consists of two components--a late Pueblo II/early Pueblo III Anasazi field house(?) and midden and a historical Navajo single dwelling temporary (?)

Site NM-Q-21-5 Field or other name Site 6 Project NNCRMP 84-200

corbelled log hogan, and a brush corral (see continuation sheet)

Condition of site: Excellent Good Fair Poor Causes of disturbance _____

Location of Site relative to project area: Within At edge Adjacent Other _____

Effect on project: None Avoidable Unavoidable _____

Extent of investigations to date: Recording Collection Testing Excavation Other _____

Research potential: subsistence/settlement data, ethnohistoric research

Recommendations: avoidance

Reported on in: NNCRMP 84-200

Provide a site map, including site designation, North arrow, scale, recognizable features and landmarks.

Additional information in project file? Yes No

Other Comments:

How can the site be reached? (Include a map showing roads and landmarks)

see USGS map

CONTINUATION SHEET: NM-Q-21-5

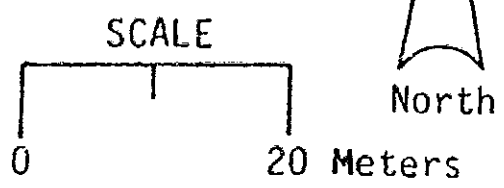
Site Description:

Feature 1 is a collapsed single-room masonry unit measuring about 3.0 m long and 2.5 m wide. The room and an extensive accumulation of ash stained soil, ceramics, and lithic artifacts (Feature 4) represent a late Pueblo II/early Pueblo III component.

Feature 2 is a rectangular brush corral and Feature 3 is a collapsed corbelled log hogan. Ancillary features associated with the Navajo component include two horizontal juniper posts with a small pile of twigs in between the two logs (Feature 5) and a scatter of milled lumber and some trash (Feature 6).

The majority of artifacts observed at the site are associated with the Anasazi component. Lithic artifacts are relatively rare and include only a few flakes, mano fragments, and a small side-notched obsidian point. Black-on-white and corrugated sherds are abundant; one incised plain gray sherd was also noted.

SITE NM-Q-21-5



Survey Area

Site Area

Fea. 3

Fea. 4

Fea. 2

Fea. 1

Fea. 5

Fea. 6

Site Survey and Management Form

Site NM-Q-21-6 Field or other name Site 7 Project NNCRMP 84-200

Project Background Test/monitor well locations for Ch 2 M Hill

Organization NNCRMP Archaeologist(s) Linda Popelish Date 5-24-84

NW 1/4 NW 1/4 NW 1/4 Section 1 Township 16 (N) E
S Range 16 (W)

UTM Zone 12, 3 9 4 8 0 8 0 N, 7 2 7 1 6 0 E.; 3 9 4 7 9 9 0 N, 7 2 7 0 7 0 E.

State New Mexico County McKinley Chapter Pinedale

Land Status: Reservation Fee Land Allotment Lease Private Other

USGS Map Reference Oak Springs, N. Mex. Map Date 1963 On lab Map? Yes No

Ground visibility: Kind and extent of cover? sparse shrub/tree cover

Topography ridgetop above valley floor

Drainage intermittent tributary of the Puerco River

Elevation 7045 feet Slope 3-4 degrees Direction of slope northwest

Soil: Clay Silt Sand Gravel Humus Loam Other

Vegetation present: pinyon, juniper, sagebrush, grama grass, and snakeweed

Cultural Affiliation: Archaic Anasazi Navajo Hispanic Anglo Other Unknown

Date of site ? - 1930 How dated? tinned containers

Dimensions of site: Core area 70 by 40 m Total area 150 by 40 m (6000 sq. m)
measured paced eyeballed other

Architecture present? Yes No Describe: remains of a burned cribbed log hogan, brush corrals, and a sweat lodge.

Artifacts observed/counted: ceramics 65 lithics 0 metal 16 other 6

Collections made? Yes No Of What? four sherds Method grab sample

Photos taken? Yes No B/W: Roll Frames Color: Roll Frames

Site Description: The site is located on a ridgetop overlooking an intermittent tributary drainage of the Puerco River. It consists of an burned hogan, t one corral, and a sweat lodge. Artifacts are few and the date

Site NM-Q-21-6 Field or other name Site 7 Project NNCRMP 84-200

of the site is uncertain, (see continuation sheet)

Condition of site: Excellent Good Fair Poor Causes of disturbance

Location of Site relative to project area: Within At edge Adjacent Other

Effect on project: None Avoidable Unavoidable

Extent of investigations to date: Recording Collection Testing Excavation Other

Research potential: Ethnohistoric research, subsistence/settlement

Recommendations: avoidance

Reported on in: NNCRMP 84-200

Provide a site map, including site designation, North arrow, scale, recognizable features and landmarks.

Additional information in project file? Yes No

Other Comments:

How can the site be reached? (Include a map showing roads and landmarks)

see USGS map

CONTINUATION SHEET: Site NM-Q-21-6

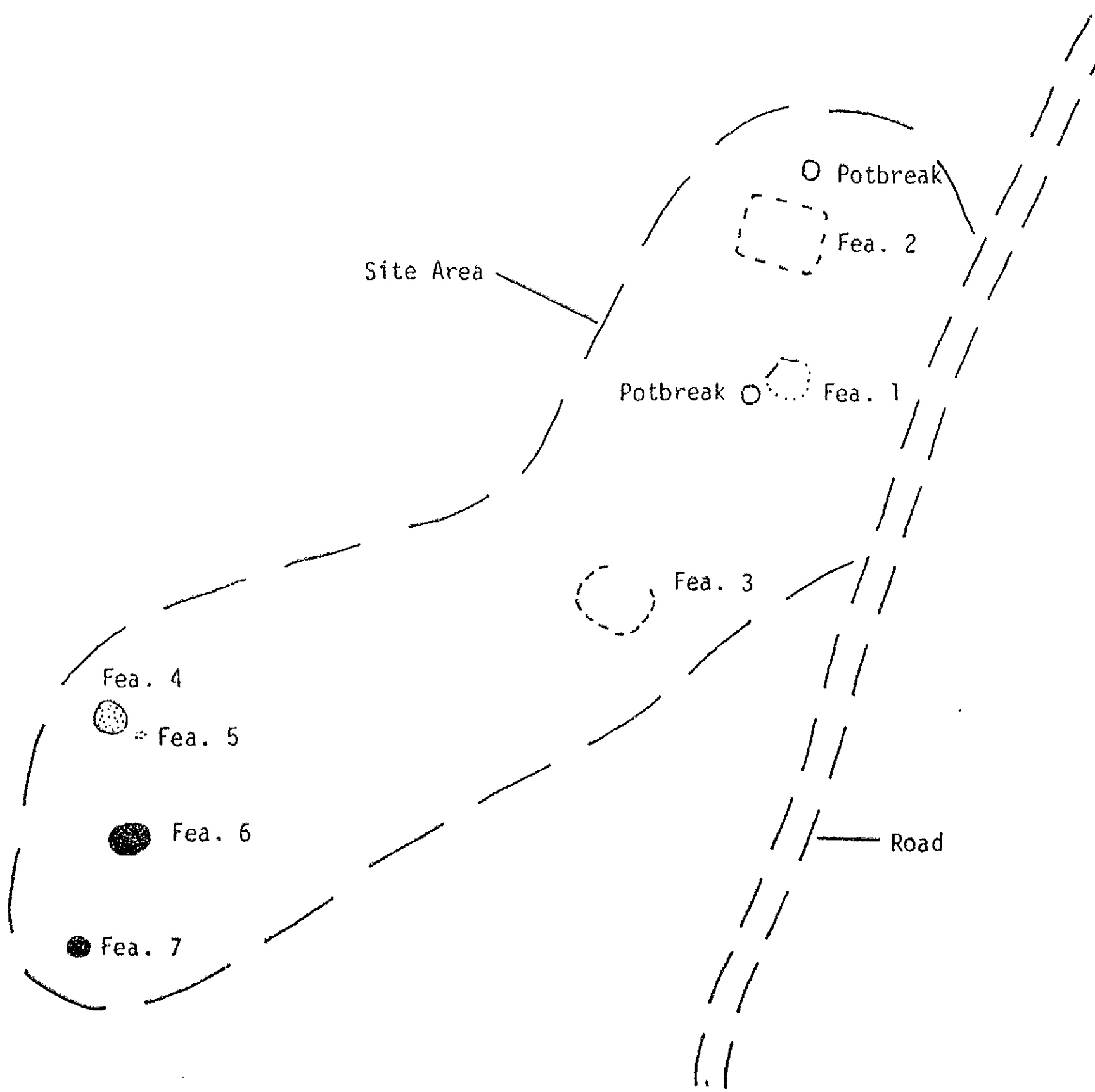
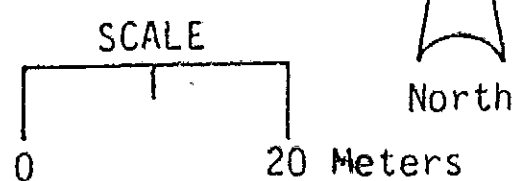
Site Description:

Feature 1 consists of two charred juniper logs and a roughly circular ash stain measuring about 5.0 m in diameter (burned hogan). Feature 3 is an oval brush corral area about 8.0 m long and 6.5 m wide. A depressed, roughly rectangular area with small brush piles occurring in places on its perimeter is probably a corral area also (Feature 2).

Several meters from the hogan is a conical pinyon and juniper post sweat lodge (Feature 5). Feature 4 is a relatively large pile of sandstone rocks used to heat the lodge and Feature 6 is the heating area (burned stone and ash). Feature 7 is an ash stain.

Artifacts are not abundant at the site and several wine bottles found near Features 1 to 3 are probably "road trash" unassociated with the structures. By Features 1 and 2 are two sherd scatters, each of which appears to be a single broken vessel. One of the vessels has been identified as Pinyon Gray (by Feature 2) and the other as Navajo Gray (by Feature 1). Other artifacts observed included some metal scraps, a lard bucket, a cast-iron skillet, and a few smashed cans. Near Feature 2 is a leaf-spring for a wagon (or possibly an automobile).

SITE NM-Q-21-6



Site Survey and Management Form

Site NM-Q-21-7 Field or other name Site 8 Project NNCRMP 84-200

Project Background Test/monitor well locations for Ch 2 M Hill

Organization NNCRMP Archaeologist(s) Tim McEnany Date 5-25-84

SW, and SE $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 1 Township 16 (N) S Range 16 E (W)

UTM Zone 12, 3 9 4 7 9 3 0 N, 7 2 7 1 2 SE.; 3 9 4 7 8 0 0 N, 7 2 7 0 3 0 E.

State New Mexico County McKinley Chapter Pinedale

Land Status: Reservation Fee Land Allotment Lease Private Other

USGS Map Reference Oak Springs, N. Mex. Map Date 1963 On lab Map? Yes No

Ground visibility: Kind and extent of cover? light to moderate shrub/tree cover

Topography ridgetop overlooking valley

Drainage intermittent tributary of the Puerco River

Elevation 7050 feet Slope 2-5 degrees Direction of slope west or southwest

Soil: Clay Silt Sand Gravel Humus Loam Other

Vegetation present: sagebrush, pinyon, juniper, grama grass, and snakeweed

Cultural Affiliation: Archaic Anasazi Navajo Hispanic Anglo Other Unknown

Date of site 1933-1960? How dated? tobacco can lid, bottle bases

Dimensions of site: Core area 80 x 60 m Total area 150 x 75 m (11,250 sq. m)

measured paced eyeballed other

Architecture present? Yes No Describe: two brush and post windbreaks or shades

Artifacts observed/counted: ceramics 7 lithics 2 metal 28 other 37

Collections made? Yes No Of What? bottle base Method grab sample

Photos taken? Yes No B/W: Roll Frames Color: Roll Frames

Site Description: The site consisted of two windbreaks or shades, a wood-chopping area, a small mound of earth, ash, and charcoal and several ash stains. Artifacts are

not especially abundant, however, there is some variety in those present at the

Site NM-Q-21-7 Field or other name Site 8 Project NNCRMP 84-200

site (see continuation sheet)

Condition of site: Excellent Good Fair Poor Causes of disturbance _____

Location of Site relative to project area: Within At edge Adjacent Other _____

Effect on project: None Avoidable Unavoidable _____

Extent of investigations to date: Recording Collection Testing Excavation Other _____

Research potential: Ethnohistorical research, subsistence/settlement

Recommendations: avoidance

Reported on in: NNCRMP 84-200

Provide a site map, including site designation, North arrow, scale, recognizable features and landmarks.

Additional information in project file? Yes No

Other Comments:

How can the site be reached? (Include a map showing roads and landmarks)

see USGS map

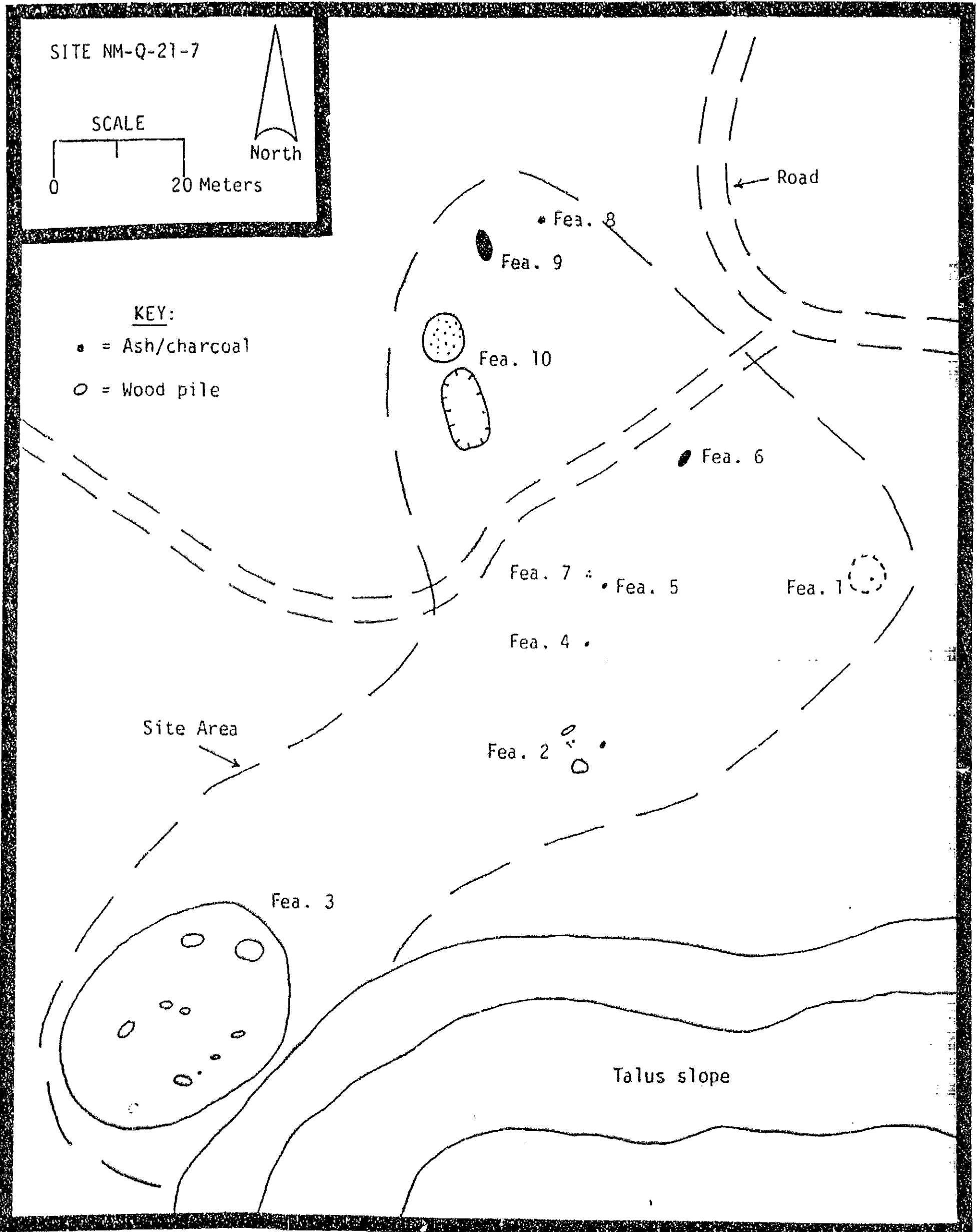
CONTINUATION SHEET: Site NM-Q-21-7

Site Description:

Feature 1 is a combination stacked bough and palisaded windbreak measuring about 5.3 by 4.5 m. Five upright juniper "posts" (branches) were set into the ground in an oval pattern with branches subsequently staked in the intervening spaces. Near the center of the feature is an ash and charcoal pile (hearth?).

Feature 2 consists of two wood piles (one scattered, one stacked) enclosing an area about 5.0 m long and 3.5 m wide. Inside the area is an ash stain and a linear arrangement of fire-cracked rock. A few meters east of the area is a small scatter of charcoal.

Feature 3 is a wood-chopping area located several meters southwest of the two windbreaks. It consists of several fairly discrete piles of wooden twigs and chips. A small amount of trash is also present in this area. Features 4, 5, 8, and 9 are all oval or circular ash stains; near Feature 4 is a small configuration of sandstone of unknown function (Feature 7). Feature 6 is a low mound of earth, ash, and charcoal measuring about 2.5 m long, 1.5 m wide, and 0.4 m high. Feature 10 is a large pit and a pile of rock and earth (soil test pit).



Site Survey and Management Form

Site NM-Q-21-8 Field or other name Site 9 Project NNCRMP 84-200

Project Background Test/monitor well locations for CH 2 M Hill

Organization NNCRMP Archaeologist(s) Tim McEnany Date 5-25-84

SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 1 Township 16 (N) E
S Range 16 (W)

UTM Zone 12, 3 9 4 7 9 1 0 N, 7 2 7 0 0 0 E.; N, E.

State New Mexico County McKinley Chapter Pinedale

Land Status: Reservation Fee Land Allotment Lease Private Other

USGS Map Reference Oak Springs, N. Mex. Map Date 1963 On lab Map? Yes No

Ground visibility: Kind and extent of cover? sparse shrub/tree cover

Topography ridgetop overlooking valley floor

Drainage intermittent tributary of the Puerco River

Elevation 7050 feet Slope variable Direction of slope variable

Soil: Clay Silt Sand Gravel Humus Loam Other

Vegetation present: pinyon, juniper, sagebrush, prickly-pear cactus, snakeweed,

grama grass

Cultural Affiliation: Archaic Anasazi Navajo Hispanic Anglo Other Unknown

Date of site unknown How dated? not applicable

Dimensions of site: Core area 15 by 15 m Total area 30 by 15 m (450 sq. m)

measured paced eyeballed other

Architecture present? Yes No Describe: hogan depression

Artifacts observed/counted: ceramics 1 lithics 0 metal 1 other 1

Collections made? Yes No Of What? sherd Method

Photos taken? Yes No B/W: Roll Frames Color: Roll Frames

Site Description: The site consists of a circular hogan depression (Feature 1), an

ash and burned sandstone pile (Feature 2), a small rock ring (Feature 3), and a

Site NM-Q-21-8 Field or other name Site 9 Project NNCRMP 84-200

relatively large rock pile (Feature 4) that may be of natural origin. Artifacts include only one sherd of Pinyon (?) gray, a wire bottle, and a metal can.

Condition of site: Excellent Good Fair Poor Causes of disturbance

Location of Site relative to project area: Within At edge Adjacent Other

Effect on project: None Avoidable Unavoidable

Extent of investigations to date: Recording Collection Testing Excavation Other

Research potential: Ethnographic research, subsistence, and dating

Recommendations: avoidance

Reported on in: NNCRMP 84-200

Provide a site map, including site designation, North arrow, scale, recognizable features and landmarks.

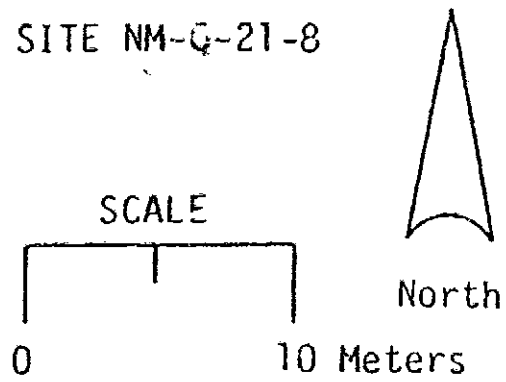
Additional information in project file? Yes No





Other Comments:

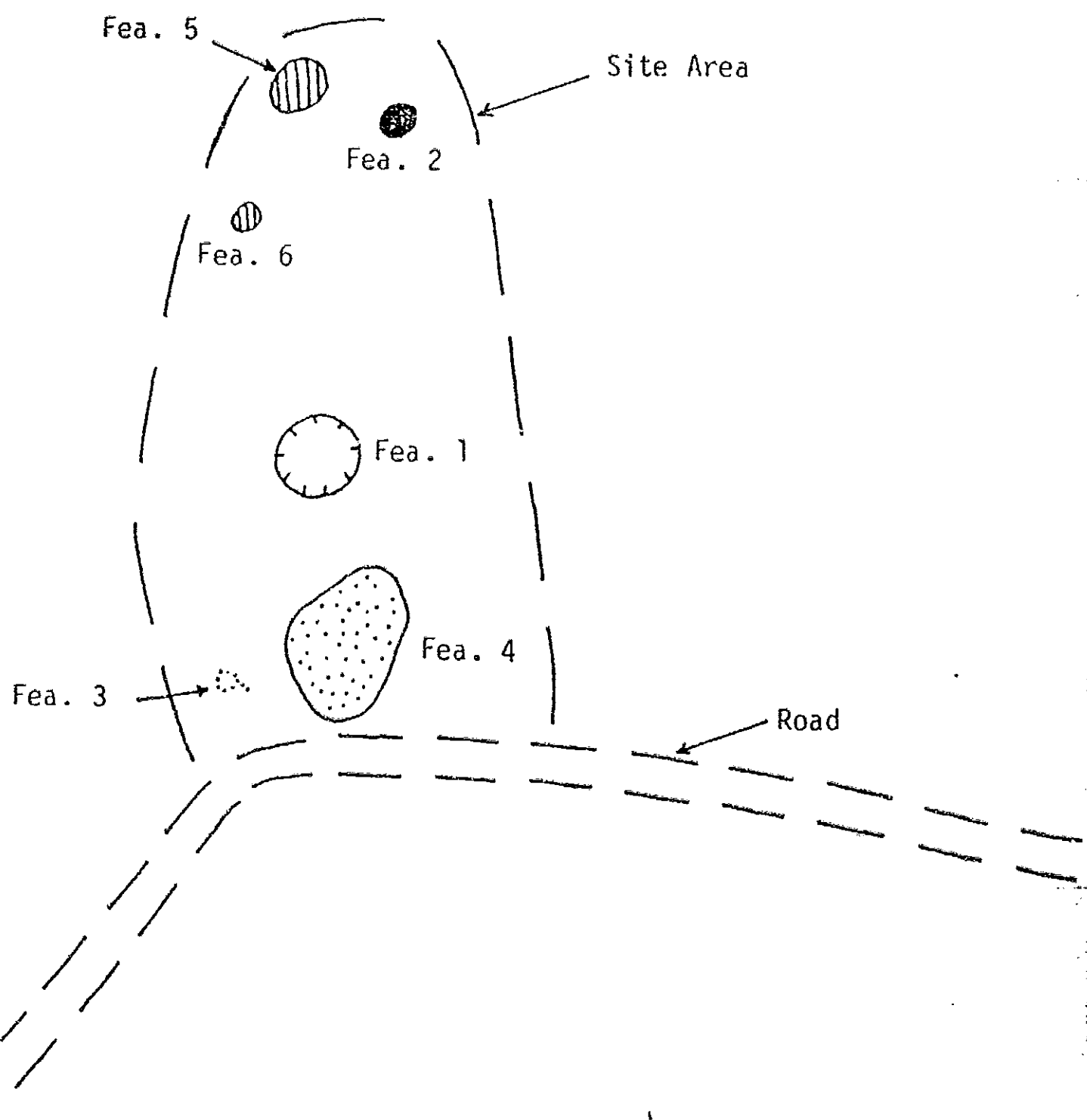
How can the site be reached? (Include a map showing roads and landmarks)

see USGS map

SITE NM-Q-21-8

KEY:

-  = Ash/burned stone
-  = Wood-chopping debris
-  = Rock pile
-  = Depression



Site Survey and Management Form

Site NM-Q-21-9 Field or other name Site 10 Project NNCRMP 84-200

Project Background Test/monitor well locations for CH 2 M Hill

Organization NNCRMP Archaeologist(s) Tim McEnany Date 5-25-84

SE 1/4 NW 1/4 NW 1/4 Section 1 Township 16 (N) E
S Range 16 (W)

UTM Zone 12, 3 9 4 7 7 7 5 N, 7 2 7 3 0 0 E.; N, E.

State New Mexico County McKinley Chapter Pinedale

Land Status: Reservation Fee Land Allotment Lease Private Other

Oak Springs,
USGS Map Reference N. Mex. Map Date 1963 On lab Map? Yes No

Ground visibility: Kind and extent of cover? Moderate shrub cover

Topography gently sloping small drainage area between ridges

Drainage intermittent tributary of the Puerco River

Elevation 7040 feet Slope 4-5 degrees Direction of slope south

Soil: Clay Silt Sand Gravel Humus Loam Other

Vegetation present: sagebrush, grama grass, with pinyon and juniper nearby

Cultural Affiliation: Archaic Anasazi Navajo Hispanic Anglo Other Unknown

Date of site unknown How dated? not applicable

Dimensions of site: Core area 20 by 15 m Total area same (300 sq. m)

measured paced eyeballed other

Architecture present? Yes No Describe: remains of a collapsed log hogan (?)

Artifacts observed/counted: ceramics 0 lithics 0 metal 0 other 4

Collections made? Yes No Of What? Method

Photos taken? Yes No B/W: Roll Frames Color: Roll Frames

Site Description: Adjacent to a dirt road is a shallow depression measuring about 5.0 m
in diameter. Scattered within and around the depression are 15 juniper posts (Feature 1).

This feature probably represents the remains of a log hogan (see continuation sheet)

Site NM-Q-21-9 Field or other name Site 10 Project NNCRMP 84-200

Condition of site: Excellent Good Fair Poor Causes of disturbance _____

Location of Site relative to project area: Within At edge Adjacent Other _____

Effect on project: None Avoidable Unavoidable _____

Extent of investigations to date: Recording Collection Testing Excavation Other _____

Research potential: Ethnohistoric research

Recommendations: avoidance

Reported on in: NNCRMP 84-200

Provide a site map, including site designation, North arrow, scale, recognizable features and landmarks.

Additional information in project file? Yes No

Other Comments:

How can the site be reached? (Include a map showing roads and landmarks)

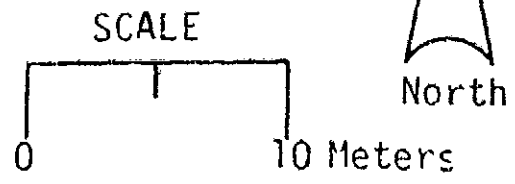
see USGS map

CONTINUATION SHEET: Site NM-Q-21-9

Site Description:

Feature 2 is a faint ash stain visible in the cut bank at the edge of the road. The only artifacts observed at the site were 3 whole wine bottles and 1 clear glass sherd. One of these appears to have been manufactured in 1976. The other two bottles are probably of recent date also. All three containers might be "road trash."

SITE NM-Q-21-9



Site Area

Fea. 1

Eastern Boundary
of Survey Area

Fea. 2

Road